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AUTHOR Bowles, Gladys K.; Beale, Calvin L.
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ABSTRACT

Data from the Annual Housing Survey indicated that 22% of all employed United States household heads commuted to a county different from that in which they lived in 1975. Commuting was more prevalent among men than among women and slightly higher for whites than for Blacks. Commuting tended to increase until age 25-34 and then to decline after age 45. Commuters had a generally higher income level than did noncommuters. Education was directly associated with commuting in metro areas but was generally negatively associated in nonmetro areas. Those who had recently moved from metro areas into nonmetro areas commuted at a rate double that of other nonmetro heads. Nonmetro-to-metro commuters outnumbered metro-to-nonmetro commuters. Median time spent going to work was 14.5 minutes for nonmetro heads and 21 minutes for metro heads. Though automobile travel to work dominated in all areas, there was greater use of public transportation in metro areas and more walking or riding with others in nonmetro areas. Survey data point out groups that will be most affected by continued high prices of gasoline and other costs of commuting and the need for the development of alternatives to individual travel. Detailed tables are included in this study. (CM)

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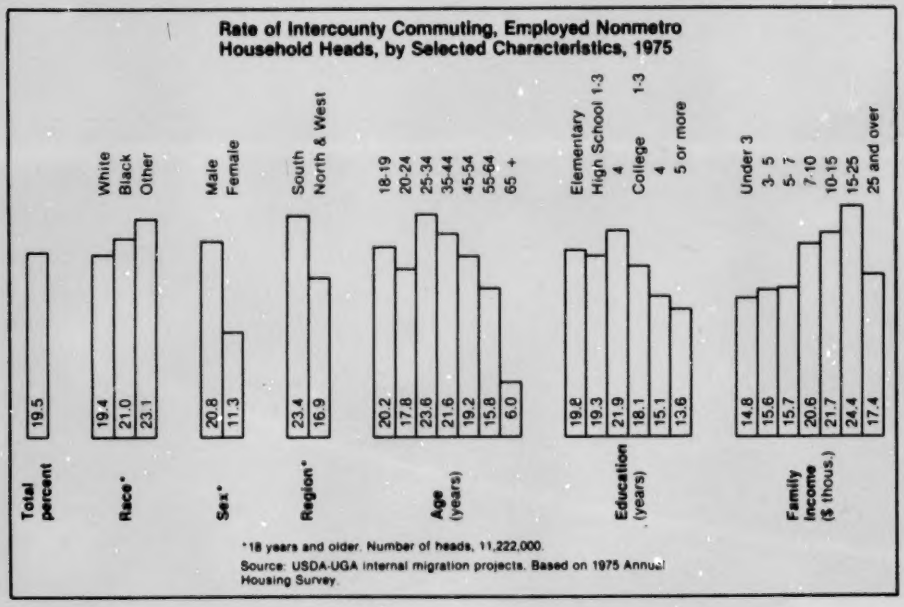

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ABSTRACT

This report examines the characteristics and rates of inter-county commuting for employment of migrant and nonmigrant household heads living in nonmetro areas in 1975. It also deals with the extent to which migrants continue in employment in the type of areas in which they lived five years earlier, and with the relationship between income and commuting. Additional information on commuting patterns, in terms of mode of transportation, time, and distance to work is provided. Comparative data are included for heads of households residing in metro areas. The research was based on the 1975 Annual Housing Survey and its Travel-to-Work Supplement.

KEY WORDS: Population, Household Heads, Migration, Commuting, Travel to Work.

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COMMUTING PATTERNS OF NONMETRO HOUSEHOLD HEADS, 1975

By

GLADYS K. BOWLES, Sociologist (Demography)
Economic Development Division
Economics, Statistics, and Cooperatives Service
U. S. Department of Agriculture

and

CALVIN L. BEALE, Supervisory Statistician (Demography)
Economic Development Division
Economics, Statistics, and Cooperatives Service
U. S. Department of Agriculture

Assisted by Sam T. Davis, III, and Eva J. Miller,
Institute for Behavioral Research,
University of Georgia

Economics, Statistics, and
Cooperatives Service
U. S. DEPARTMENT OF AGRICULTURE

and

Institute for Behavioral Research
UNIVERSITY OF GEORGIA

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HIGHLIGHTS

(1) According to the 1975 Annual Housing Survey, nearly 70 percent of employed household heads in the United States were known to work in the same county in which they lived (noncommuters) and 20 percent worked in a different county (commuters). Information was not obtained on the location of employment for the others.

(2) Commuting rates varied by demographic and social characteristics. Whites and minorities other than Blacks had rates that were higher than the commuting rate of Blacks. Commuting was considerably more prevalent among men than women, and heads living in the South commuted slightly more than those in the rest of the country.

(3) Commuting tended to increase until age 25-34 and then to recede after age 45. The pattern was mixed for education groups. Heads with four years of high school or four or more years of college had somewhat higher rates than those with other levels of education.

(4) When all heads were considered together, income was directly and substantially related to rate of commuting, with only one irregularity. The highest rates occurred among those with highest incomes. It is apparent, therefore, that commuting is rewarded and income is a strong incentive to commuting. Also reflected in the commuting-income relationship is the greater ability of people with good income to live where they wish.

(5) A somewhat higher proportion of metro than nonmetro heads crossed a county line on the trip to work, but commuting rates were not higher in metro areas for Blacks nor in the South. Young household heads in nonmetro areas commuted more than their counterparts in metro areas. For all other age groups beginning with age 25-34 years, inter-county commuting was more prevalent in metro areas.

(6) Education was directly associated with commuting in metro areas, but was generally negatively associated in nonmetro areas. This is one of the important differences between metro and nonmetro heads in the socio-economic context of worker commuting.

(7) In both metro and nonmetro areas, migrant heads had higher rates of commuting than nonmigrants. Among the residence-mobility status categories, nonmigrants in the nonmetro population had the lowest inter-county commuting rates and heads who had migrated from one metro county to another had the highest.

(8) In the nonmetro population, a much higher proportion of the heads who had previously lived in metro areas were found to be inter-county commuters than was true of nonmetro heads who had not moved between 1970 and 1975 or those who had moved from one nonmetro county to another. Nevertheless, an overwhelming majority of the newcomers to nonmetro areas (83 percent) were not dependent on metro employment. Their move away from the large cities or suburbs usually involved a severing of their former economic ties.

(9) Commuting rates among metro/nonmetro migrant heads generally surpassed those of people who had moved in the opposite direction. Some unusual relationships between commuting and socio-economic characteristics were found for the metro/nonmetro migrants. Older migrants had higher rates than younger. With some irregularity, rates of commuting fell as education increased, but rose with income. Usually education and income have similar relationships with other phenomena.

(10) Inter-residential commuting (living in metro areas while working in nonmetro areas and vice versa) was higher for migrants than nonmigrants among heads in both residence categories. The highest proportions of inter-residential commuting occurred among people who had moved between metro and nonmetro areas, and the rate of such commuting was much higher for the metro/nonmetro migrants than for heads who had moved in the opposite direction.

(11) The relationships observed in other research between mobility status, residence, and income were found in this study. Whether they were commuters or noncommuters, long-term metro residents had the highest incomes and long-term nonmetro residents had the lowest. Heads moving between metro and nonmetro areas were in an intermediate position. With the exception of heads who had moved between two nonmetro areas between 1970 and 1975, commuters in each residence and mobility group had significantly higher median incomes than did the noncommuters.

(12) The prevalent mode of transportation to work of employed household heads in 1975 was the automobile, with a majority driving alone whether they were migrants or nonmigrants, commuters or noncommuters. Commuters were somewhat more likely to drive to work with others, or to use public transportation. Noncommuters, on the other hand, more often walked, rode bicycles or motorcycles, or used other means to reach their places of employment. The major differences in mode of transportation to work between metro and nonmetro commuters were in the proportions who traveled in autos with other people (higher among the nonmetro) and in use of public transportation (lower among the nonmetro).

(13) Median time traveled from home to work for household heads working away at a fixed work place was 21 minutes, and the median distance was 7 miles. Nonmetro heads required less time and traveled a shorter median distance than did metro heads. Because of the mixture of residential types and farm and nonfarm occupations in nonmetro areas, there were an abnormally higher proportion of workers at each end of the distance scale among nonmetro residents and a wide difference in distance traveled between commuters and noncommuters. About a fourth of the nonmetro heads either worked at home or lived less than one mile from their work while one in thirteen traveled 30 miles or more.

(14) Of the nonmetro heads who worked in their home county, about three-fourths lived within 5 miles of their employment. Nearly two-fifths of the commuters, however, traveled 20 miles or more each way. On the average, commuters traveled more than six times farther than noncommuters.

(15) Median time spent in commuting was nearly the same for metro and nonmetro heads. The greater distance traveled by rural and small-town commuters was largely offset by higher rates of speed than can be maintained in open-country or other less congested areas. Heads who had moved into the nonmetro population from metro areas not only were the most likely to commute to a different county to work, but they also made the longest trips. Nearly two-fifths of them traveled 30 or more miles to work compared with less than eight percent for all nonmetro employed household heads.

(16) The information in this report provides many insights into the relationships between migration and commuting for employment. In addition, the data on the extent of inter-county commuting, mode of transportation, and time and distance to work among household heads with various socio-economic characteristics have important implications for policy decisions. They serve to underscore the need for continued development of employment opportunities and improvement of public transportation facilities in nonmetro areas. They point out groups that will be particularly vulnerable to continued high prices of gasoline and other costs of every-day long-distance travel and the need for the development of alternatives to individual travel.

KEY DEFINITIONS

The information in this report relates to employed household heads for whom locations of residence and employment in 1975 were known. Certain key definitions are important for an understanding of the materials presented:

Residence, 1975

Metro and nonmetro residence as of 1975 according to Federal Government designations

Worker Commuting, 1975

Noncommuters -- lived and worked in the same county
Commuters -- lived and worked in different counties

Mobility Status, 1970-75

Nonmigrants -- lived in the same county
Migrants -- lived in different counties

Migrants were categorized by type of residence at each date

Nonmetro, 1970/Nonmetro, 1975
Metro, 1970/Nonmetro 1975
Metro, 1970/Metro, 1975
Nonmetro, 1970/Metro, 1975

Residence and Mobility Status Analytical Categories

(Residence and mobility status were combined to form the analytical categories used throughout this report)

Employed household heads, reporting commuter status

- Nonmigrant, 1970-75
- Migrant, 1970-75

Nonmetro, 1975
- Nonmigrant, 1970-75
- Nonmetro/Nonmetro, 1970-75
- Metro/Nonmetro, 1970-75

Metro, 1975
- Nonmigrant, 1970-75
- Metro/Metro, 1970-75
- Nonmetro/Metro, 1970-75

INTRODUCTION

Official concern in the United States about the relationship between place of residence and location of employment dates back more than one hundred years. In the 1865 Census of the State of New York information was obtained "on the usual place of employment, if out of the city or town where the family resides." Unfortunately, the results were considered "too meager" and figures were published "only for the counties upon the Hudson and on Long Island and Staten Island," and recommendation was made that the subject not be pursued (7).*

It was not until much later, when the automobile became the primary mode of transportation, contributing to the burgeoning of suburbs, that commuting became a research topic in many disciplines. In the 1950's there was a proliferation of studies based on traffic origin and destination flows, management records, and special surveys. The federal government gave attention to inter-county commuting in this period in a Current Population Survey (15). But, as pointed out by Leo F. Schnore, prior to 1960, "The United States census -- long used as a model by other nations -- [was] one of the few in the Western world which [had] never collected information on the places of work of employed members of the labor force as a part of its full-scale operations" (8).[1] As early as 1945, the National Census of New Zealand "included a question designed to elicit information as to the time spent in transit from home to work place for the working population as a whole" (16).

Most of the research for the United States that has appeared since 1960, whether based on the census publications of Journey to Work (13 and 14) or other sources, has largely been confined to metropolitan areas. One exception is that of Clemente and Summers dealing with factors associated with distance traveled by workers in a rural steel plant in Illinois (3).

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[1] The article by Schnore has an excellent bibliography of both published and unpublished works appearing by 1960.

* Underlined figures in parentheses identify references on pages 32-34.

There has not been a national study of the inter-county commuting patterns of migrants and nonmigrants living in nonmetro areas, prior to this one. A recently issued bulletin of the Bureau of the Census on journey to work in 1975 contains general information for the nonmetro and metro populations but does not deal with migration (10). Interest in this subject stemmed from some of the findings of previous research on the characteristics of metro/nonmetro migrants. It was noted that "in their occupation, industry, and income attributes, [metro/nonmetro] migrants did not have a negative impact on the nonmetro population [as some people had predicted]. High proportions were in white collar occupations and industries, and average income was not less than that of the total nonmetro population. Nor did the nonmetro population suffer in exchanges with metro areas in earning capacity of migrants. Remarkable similarity was noted in the income of metro/nonmetro migrants and persons moving in the opposite direction" (2).

These findings led to several questions on the similarities and differences among the migrant and nonmigrant groups that appeared not to have been addressed in the recent literature on nonmetro population and migration turnaround. Questions were raised about the role of commuting for work in these relationships, the association between migration and commuting in general, and the extent to which migrants to nonmetro areas are employed in jobs located in metro areas. Increased concern about the potential effect on population distribution of the gasoline crisis of 1979 has increased the salience of the commuting data presented here, although this issue had not developed when the study was designed.

The availability in the 1975 Annual Housing Survey (AHS) and its travel-to-work supplement of information on previous and current residence and location of work for household heads permits a limited investigation of these subjects. In this report, commuters are household heads who lived and worked in different counties at the time they were surveyed.[2] Household heads were self-designated by the people being interviewed, except that it was Census Bureau procedure in 1975 not to treat wives as heads if husbands were present. Migrants lived in different counties in 1975 from those in which they had lived five years earlier. The data, which are based on special tabulations from the AHS, reflect metro designations through

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[2] This is the conventional measure used in the Census of Population. It is recognized, although not dealt with here, that in addition to the availability of employment, such geographic features as size, shape, and boundary configurations of counties are important determinants of commuting patterns.

1975. Thus, they differ somewhat from similar estimates published by the Bureau of the Census (10).[3] In general, each metro area has an urban nucleus of at least 50,000 people and may include adjoining counties that meet certain criteria of worker commuting and metropolitan character. All other counties are nonmetro.

According to the AHS, there were 48.9 million employed household heads in the United States in 1975 (Table A). Nearly 70 percent of them

Table A--Household heads, by employment and commuter status and location of work, 1975

Characteristic	Number	Percentage		
		Of total	Of employed	Of commuter status group
	(000)	(Pct.)	(Pct.)	(Pct.)
Total	72,486	100.0		
Not employed	23,578	32.5		
Employed	48,908	67.5	100.0	
Inter-county commuter	9,506		19.4	100.0
Place of work nonmetro	1,887		3.9	19.9
Place of work metro	7,619		15.6	80.1
Noncommuter	33,980		69.5	100.0
Place of work nonmetro	9,030		18.5	26.6
Place of work metro	24,949		51.0	73.4
Commuter status not known	5,422		11.1	

Source: Special tabulations from the 1975 Annual Housing Survey.

worked in the same county in which they lived (noncommuters) and about 20 percent worked in a different county (inter-county commuters). Information was not obtained on the location of employment for the other 11 percent. The remainder of this report is based on data for the employed household heads for whom commuting status was known. Detailed information on the numbers and characteristics of inter-county commuter and noncommuter household heads and on their commuting rates can be found in Appendix A, Tables 1-11. Additional

[3] Information on the reliability of estimates from the AHS and definitions and explanations of terms and concepts can be found in recent publications of the Bureau of the Census relating to the journey to work in selected metro areas and pertaining to the AHS per se (10) (11) (12).

information on commuting patterns, in terms of mode of transportation, time, and distance to work, is provided in Appendix A, Tables 12-22. Summary data are interspersed throughout the text in Tables A-O.

Of the household heads discussed here, slightly more than three-fourths lived in the same county in 1975 in which they had lived in 1970 (nonmigrants), and the remainder lived in different counties (migrants) (Table B). About 11.2 million, or a fourth, of the heads, lived in nonmetro areas.

Heads who moved from metro to nonmetro areas between 1970 and 1975 nominally[4] outnumbered those moving in the opposite direction, 1.5 compared with 1.3 million. In terms of the AHS sample the difference is significant at the 90 percent but not at the 95 percent level. However, metro/nonmetro migrants had a greater impact on the population they joined than did the nonmetro/metro migrants because of the different sizes of the base populations. The former were 13.4 percent of all nonmetro heads in 1975, whereas the latter were only 3.2 percent of the metro group at that date.

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[4] Tests of significance were made at the 2.0 and 1.6 standard error levels following procedures recommended by the Bureau of the Census for the AHS. In comparative statements, the word "nominally" is used if the difference was statistically significant at the 1.6 but not at the 2.0 level, corresponding to the 90 and 95 percentage levels. (See Appendix B for additional information.)

Table B--Employed household heads, by residence, mobility and inter-county commuter status, 1975

Residence and Mobility Status	Total			Inter-county commuter			Noncommuter		
	Number	Percent of total	Percent of residence category	Number	Percent of total	Percent of residence category	Number	Percent of total	Percent of residence category
	(000)	(Pct.)	(Pct.)	(000)	(Pct.)	(Pct.)	(000)	(Pct.)	(Pct.)
Employed household heads, reporting commuter status	43,486	100.0	-	9,506	100.0	-	33,980	100.0	-
Nonmigrant, 1970-75	33,689	77.5	-	6,418	67.5	-	27,271	80.3	-
Migrant, 1970-75	9,797	22.5	-	3,088	32.5	-	6,709	19.7	-
Nonmetro, 1975	11,222	25.8	100.0	2,192	23.1	100.0	9,030	26.6	100.0
Nonmigrant, 1970-75	8,566	19.7	76.3	1,524	16.0	69.5	7,042	20.7	78.0
Nonmetro/Nonmetro, 1970-75	1,143	2.6	10.2	265	2.8	12.1	878	2.6	9.7
Metro/Nonmetro, 1970-75	1,513	3.5	13.5	402	4.2	18.3	1,111	3.3	12.3
Metro, 1975	32,263	74.2	100.0	7,314	76.9	100.0	24,949	73.4	100.0
Nonmigrant, 1970-75	25,123	57.8	77.9	4,894	51.5	66.9	20,229	59.5	81.1
Metro/Metro, 1970-75	5,747	13.2	17.8	2,150	22.6	29.4	3,597	10.6	14.4
Nonmetro/Metro, 1970-75	1,392	3.2	4.3	269	2.8	3.7	1,123	3.3	4.5

Source: Appendix A, tables 1-11.

INTER-COUNTY COMMUTING FOR RESIDENCE AND MOBILITY STATUS GROUPS, BY SELECTED CHARACTERISTICS

General Commuting Patterns

About 22 percent of all employed household heads commuted to work in a county different from that in which they lived in 1975 (Table C). This rate is much higher than that of inter-county commuting for all other household members (not included in this study) which was about 9 percent (10). Rates varied by demographic and social characteristics of heads. Blacks had a lower rate than whites or persons of other races, because of relatively low commuting by Blacks in metro areas. Commuting was more prevalent among men than women. Many women are believed to choose jobs close to home if they have children, and the lower average wages received by women may also serve to restrain commuting. Heads living in the South tended to commute more than those in the rest of the country -- an effect resulting primarily from high commuting in rural and small town parts of the Southern region.

Migrants commuted to work in another county more extensively than nonmigrants, whatever their race, sex, or region. The strong linkage between migration and commuting is shown by the fact that under one-fifth of the household heads who lived in the same county in 1970 and 1975 commuted to work in another county compared with nearly a third of those who were migrants.

A higher proportion of metro than nonmetro heads crossed a county line on the trip to work. The somewhat smaller average land area of metro counties contributes to this difference, as trips of a given length are more likely to cross a county line in metro areas. Higher metro commuting was true for both sexes and for whites, but not for Blacks, and it was not true for the South as a whole where rates of commuting were almost exactly the same in the two residence categories.

Commuting rose to a peak among heads 25-44 years old and then receded (rapidly after age 45). (Table D). This pattern held for both migrants and nonmigrants. Young household heads in the nonmetro areas commuted more often than their counterparts in the metro areas, but for all other age groups beginning with 25-34 years commuting

Table C--Rate of inter-county commuting, by race, sex, and region, for employed household heads, by residence and mobility status, 1975

Residence and Mobility Status	Total	Race			Sex		Region	
		Whites	Blacks	Other	Males	Females	South	North and West
	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)
Employed household heads, reporting commuter status	21.9	22.2	18.2	24.6	23.3	14.4	23.5	21.1
Nonmigrant, 1970-75	19.1	19.4	16.3	19.6	20.4	12.3	20.6	18.4
Migrant, 1970-75	31.5	31.6	28.4	41.3	33.1	22.2	32.2	31.1
Nonmetro, 1975	19.5	19.4	21.0	23.1	20.8	11.3	23.4	16.9
Nonmigrant, 1970-75	17.8	17.6	20.1	*	18.9	11.0	21.3	15.3
Nonmetro/Nonmetro, 1970-75	23.2	23.6	*	*	25.1	10.8	28.8	19.6
Metro/Nonmetro, 1970-75	26.6	26.2	*	*	27.9	15.0	31.9	23.4
Metro, 1975	22.7	23.2	17.6	24.8	24.2	15.2	23.6	22.3
Nonmigrant, 1970-75	19.5	20.0	15.5	19.4	20.9	12.6	20.2	19.2
Metro/Metro, 1970-75	37.4	37.8	30.2	45.2	39.2	28.0	36.3	38.0
Nonmetro/Metro, 1970-75	19.3	19.4	19.0	*	20.6	13.8	21.3	18.0

Source: Appendix A, tables 1-11.

* Base less than 75,000.

Table D--Rate of inter-county commuting, by age, for employed household heads, by residence and mobility status, 1975

Residence and Mobility Status	Total	Age (years)						
		18-19	20-24	25-34	35-44	45-54	55-64	65 and over
	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)
Employed household heads, reporting commuter status	21.9	13.8	16.9	24.6	24.1	22.2	19.0	13.0
Nonmigrant, 1970-75	19.1	14.0	14.5	19.2	21.2	20.3	18.3	12.3
Migrant, 1970-75	31.5	13.3	20.7	34.0	35.6	35.6	27.6	24.0
Nonmetro, 1975	19.5	20.2	17.8	23.6	21.6	19.2	15.8	6.0
Nonmigrant, 1970-75	17.8	22.7	17.7	21.9	19.8	17.6	14.8	6.0
Nonmetro/Nonmetro, 1970-75	23.2	*	21.5	25.0	26.7	22.8	16.7	*
Metro/Nonmetro, 1970-75	26.6	*	14.0	27.1	28.1	34.0	34.9	*
Metro, 1975	22.7	10.7	16.6	25.0	24.9	23.2	20.2	16.4
Nonmigrant, 1970-75	19.5	10.3	13.2	18.3	21.7	21.2	19.5	15.4
Metro/Metro, 1970-75	37.4	*	26.3	39.7	42.0	41.7	29.5	*
Nonmetro/Metro, 1970-75	19.3	*	9.8	23.8	21.7	17.5	*	*

Source: Appendix A, table 1-11.

* Base less than 75,000.

was more prevalent in the metro areas.

The general commuting pattern showed little variation by educational levels (Table E). Rates ranged only from 20 percent among workers with no high school training to 23.7 percent for those with 4 years of college. However, commuting was much higher among the best educated in the metro areas than among those with equivalent education who lived in the smaller places. Among nonmetro resident heads there was an inverse relationship between education and commuting beginning with those with four years of high school. In brief, inter-county commuting has been most attractive to college graduates in metro areas, but also to persons of high school or lower education in the rural areas and small towns. Thus it may serve somewhat different functions in the two settings.

With one irregularity, income was directly related to rate of commuting -- the highest rates occurring among those with highest incomes (Table F). The pattern was very regular for nonmigrants. The one irregularity in the pattern was due to a somewhat higher commuting rate of the lowest income class among the migrants. The relationship between commuting and income noted above prevailed for metro and nonmetro heads, except for those with highest incomes among the latter (perhaps successful farmers and local business men). There was no regular pattern of difference in level of commuting rates between metro and nonmetro heads with incomes below $15,000, but for the higher income groups, rates were higher for the metro household heads. The fact that commuting is positively associated with income in nonmetro areas (except for the very top income class) and negatively related to education, suggests that the most successful people among those of average or low education are engaged in it. It may be the vehicle, for example, through which many skilled rural or small town craftsmen and operatives maximize their incomes.

Commuting and Mobility Status in Nonmetro and Metro Areas

This section deals with the commuting rates of three mobility status categories within nonmetro and metro areas: (1) Nonmigrants, (heads who lived in the same county in 1975 as in 1970), (2) intra-residential migrants, (heads who had moved from one nonmetro county to another or from one metro county to another), and (3) inter-residential migrants, (heads who had moved from one type of area to the other). The rates for selected characteristics of household heads used for comparative purposes are in Tables C-E, referred to above.

In both metro and nonmetro areas, migrants had considerably higher rates of commuting than nonmigrants. Migrants may have moved to a different county without changing jobs -- which would make them

Table E--Rate of inter-county commuting, by education, for employed household heads,* by residence and mobility status, 1975

Residence and Mobility Status	Total	Years of school completed					
			High school		College		
		Elementary	1-3	4	1-3	4	5
	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)
Employed household heads, reporting commuter status	21.9	20.0	20.6	22.8	20.4	23.9	22.5
Nonmigrant, 1970-75	19.1	18.6	18.6	20.1	16.9	20.2	18.7
Migrant, 1970-75	31.5	32.2	32.2	34.5	28.9	30.2	29.5
Nonmetro, 1975	19.5	19.8	19.3	21.9	18.1	15.1	13.6
Nonmigrant, 1970-75	17.8	18.2	18.3	19.6	15.2	13.2	11.6
Nonmetro/Nonmetro, 1970-75	23.2	33.6	19.4	27.8	21.6	16.3	13.8
Metro/Nonmetro, 1970-75	26.6	32.6	27.4	32.1	25.6	18.8	18.7
Metro, 1975	22.7	20.1	21.3	23.2	20.9	26.0	24.4
Nonmigrant, 1970-75	19.5	18.8	18.8	20.3	17.3	21.6	20.1
Metro/Metro, 1970-75	37.4	36.7	39.6	41.0	32.8	38.4	35.4
Nonmetro/Metro, 1970-75	19.3	*	20.9	19.5	19.4	19.8	19.5

Source: Appendix A, tables 1-11.

* Base less than 75,000.

Table F--Rate of inter-county commuting, by income, for employed household heads, by residence and mobility status, 1975

Residence and Mobility Status	Total	Family Income						
		Under $3,000	$3,000 - $4,999	$5,000 - $6,999	$7,000 - $9,999	$10,000 - $14,999	$15,000 - $24,999	$25,000 and over
	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)	(Pct.)
Employed household heads, reporting commuter status	23.3	15.5	14.7	17.6	18.9	21.7	26.1	27.2
Nonmigrant, 1970-75	20.3	13.2	13.3	16.4	17.5	18.8	22.6	23.0
Migrant, 1970-75	34.3	24.3	20.2	22.0	23.5	32.2	39.3	45.2
Nonmetro, 1975	20.8	14.8	15.6	15.7	20.6	21.7	24.4	17.4
Nonmigrant, 1970-75	18.9	9.9	15.6	15.0	19.7	20.0	21.9	14.2
Nonmetro/Nonmetro, 1970-75	25.6	**	**	22.7	25.3	25.9	28.6	*
Metro/Nonmetro, 1970-75	28.7	**	**	16.4	22.2	29.0	34.4	34.1
Metro, 1975	24.2	16.1	14.1	18.9	18.0	21.7	26.6	29.1
Nonmigrant, 1970-75	20.8	15.4	11.6	17.2	16.3	18.3	22.8	24.7
Metro/Metro, 1970-75	40.6	*	27.4	27.7	27.1	37.0	44.9	50.5
Nonmetro/Metro, 1970-75	23.0	**	**	13.3	10.8	24.8	27.7	29.3

Source: Appendix A, tables 1-11.

** Base less than 75,000.

* Relates to heads with families who had income in 1975 rather than to all employed heads of households.

commuters -- or the personal circumstances and attributes that induce migration may also be associated with a willingness or ability to commute. Nonmigrants in the nonmetro population had the lowest inter-county commuting rates and heads who had moved from one metro county to another had by far the highest. Next highest in rate of commuting were the heads who had moved from metro to nonmetro areas. Their rate was nominally higher than that of people who had moved from one nonmetro area to another, and was considerably above that of people who had moved in the opposite direction, from nonmetro to metro areas.

A basic difference between metro and nonmetro commuting patterns is revealed from these data. Among metro household heads, those who have moved from one metro county to another -- which may be within the same area or between different areas -- are far and away the most active commuting group. They are nearly twice as likely to go to another county for work as are other metro heads (37 percent versus 19 percent), including those who are also migrants but have moved in from a nonmetro county. By contrast, within nonmetro areas, it is not the internal migrants who are the most frequent commuters. Rather the inter-residential migrants recently arrived from metro areas have this position. Inter-residential migration thus has the effect of reducing overall commuting frequency in metro areas, but raising it in rural and small farm areas.

Race, Sex, and Region[5]

The only comparison that can be made for racial groups among nonmetro heads is between white and Black nonmigrants as the numbers for the other mobility groups were too small. For nonmigrants, the commuting rate for Blacks was higher than that of whites, partly due to the concentration of Blacks in that part of the South where counties are smaller than average. This is in contrast with the pattern for metro nonmigrants and metro/metro migrants where the rates for whites exceeded those of Blacks, reflecting largely the suburban

[5] Because of the size of the AHS sample, it is difficult to make definitive statements on the differences in commuting rates among the six mobility status classes when the data are disaggregated for important demographic, social, and economic characteristics. Therefore, strict adherence to tests of significance was not observed in this and the following sections. Rather the "apparent" relationships are discussed, excercising reasonable caution about the sample size in each group. Rates are not shown or discussed if the bases were very small, fewer than 75,000 people.

concentration of whites and their heavy commuting to central city employment. There was no difference in the commuting rates of Blacks and whites who had moved from nonmetro to metro areas between 1970 and 1975.

There was no exception among the six residence and mobility categories to the general pattern of higher commuting among male than female household heads. Such a difference is one of the most characteristic male-female distinctions in the whole field of labor force participation, but not widely discussed. In particular, women are much less likely than men to travel lengthy distances to work (10). The overall pattern of highest and lowest rates among the categories, observed above, stemmed from that of males as they comprise about 85 percent of the total. The general pattern was not modified by the somewhat different relationship among the categories for females. Among nonmetro female heads there was no difference in commuting between those who were nonmigrants and those who had moved from one nonmetro place to another.

For reasons not fully clear, although all mobility classes in the nonmetro South had significantly higher rates of commuting than those in the North and West, this was not true in the metro population. For any mobility class, metro rates were rather similar by region, and thus essentially the same as the national rates.

Age and Education

The relationship between age and extent of inter-county commuting for employment followed a reasonably consistent pattern by mobility status. With a few exceptions, rates were low for the youngest heads, rose to a peak for one or more groups in the middle years and then decreased with advancing years. The most notable variation occurred among metro/nonmetro migrant heads for whom age and rate of commuting was direct rather than inverse as was found in the general population 25 years old and over. For this group commuting continued to rise with age, reaching a high of 34.9 percent among heads 55-64 years old.

The relationship between education and rate of inter-county commuting for employment varied considerably among the residence and mobility status categories. The nonmetro groups were consistent in showing higher reliance on inter-county commuting for heads who had no more than a high school education than for those with at least some college training. Indeed, among nonmetro migrants, persons with only an elementary education were the most likely to go to another county for work -- twice as likely as college graduates. On the other hand, the mobility status groups within metro areas

showed little pattern by education. Each of the three metro mobility groups differed in the educational group showing highest commuting, but the differences with the other educational attainment levels were rather nominal. The somewhat positive connection between commuting and education for all metro heads results from the varying educational make up of the different mobility groups rather than from commuting variations within educational groups. In particular, the highest educational level of metro/metro migrants -- a class with very high commuting -- produces the overall higher commuting levels of metro college graduates. Without exception, the highest commuting rates among the residence and mobility groups occurred among metro/metro migrants in each education category. Generally, the lowest rates occurred among nonmetro nonmigrants in the higher education categories.

LOCATION OF EMPLOYMENT FOR INTER-COUNTY COMMUTERS

Several authors have attributed the higher prevalence of commuting among migrants to the fact that many of them remain in the jobs they had before they moved (4, 6, and 9). An implicit hypothesis in this research was that some of the similarities noted among people moving in either direction between metro and nonmetro areas stemmed from the fact that sizeable proportions of them commuted to employment in the area they left. This cannot be addressed directly with the AHS sample as there were no questions on location of previous employment. It was possible, however, to measure the differences in inter-residential commuting for employment among migrants and nonmigrants and the degree to which migrants between metro and nonmetro areas had employment in the type of area they left.

For household heads living in either metro or nonmetro areas, inter-residential commuting was higher for migrants than for nonmigrants, if all migrants are considered together (Table G). This was true whether the proportions working in metro and nonmetro locations were based on the overall totals or on the number of commuters in each migrant category. Among migrants, on the other hand, a strong relationship existed between location of work and type of residence five years earlier. The strongest occurred among heads who had moved from one metro county to another -- a not surprising circumstance. Ninety-five percent of this group who commuted went to work in another metro county, rather than to a nonmetro area. Among commuters who had moved between nonmetro counties about 81 percent commuted to work located in different nonmetro counties. Sixty-five percent of the metro/nonmetro migrants who commuted went to work in metro areas. Thus, although as noted earlier, most nonmetro heads of recent metro origin do not commute, the majority of those who do rely on metro jobs. Only 30 percent of heads who had moved from nonmetro to metro areas commuted inter-residentially to nonmetro jobs, but this was much greater than the rate for metro nonmigrants (9 percent).

It is interesting to note that among the nonmetro household heads who commuted to metro areas, about three-fifths worked in the suburban or outer ring locations and only two-fifths in the central cities

Table G--Inter-residential commuting, for employed household heads, by residence and mobility status, 1975

Residence and Mobility Status	Total	Inter-county commuters						
		Total	Place of work		Percentage of total		Percentage of commuters	
			Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro
	(000)	(000)	(000)	(000)	(Pct.)	(Pct.)	(Pct.)	(Pct.)
Employed household heads, reporting commuter status	43,486	9,506	7,619	1,889	17.5	4.3	80.1	19.9
Nonmigrant, 1970-75	33,689	6,418	5,072	1,346	15.1	4.0	79.0	21.0
Migrant, 1970-75	9,797	3,088	2,547	543	26.0	5.5	82.5	17.6
Nonmetro, 1975	11,222	2,192	973	1,219	8.7	10.9	44.3	55.6
Nonmigrant, 1970-75	8,566	1,524	658	864	7.7	10.1	43.2	56.7
Nonmetro/Nonmetro, 1970-75	1,143	265	51	214	4.5	18.7 X	19.2	80.8 X
Metro/Nonmetro, 1970-75	1,513	402	262	141	17.3 X	9.3	65.2 X	35.1
Metro, 1975	32,263	7,314	6,646	668	20.6	2.1	90.9	9.2
Nonmigrant, 1970-75	25,123	4,894	4,414	482	17.6	1.9	90.2	9.8
Metro/Metro, 1970-75	5,747	2,150	2,044	107	35.6 X	1.9	95.1 X	5.0
Nonmetro/Metro, 1970-75	1,392	269	190	81	13.6	5.8 X	70.6	30.1 X

Source: Appendix A, tables 1-11 and related data from special tabulations from the 1975 AHS.

Note: Underlined figures indicated inter-residential commuting. X'd figures indicate commuting to type of area of origin.

(Table H). These proportions were about the same for migrant and nonmigrant nonmetro heads.

Table H--Central-city or ring location of employment for nonmetro inter-county commuter household heads, by mobility status, 1975

Residence and Mobility Status	Location in central city or ring				
	Number of commuters			Percentage	
	Total	Central city	Ring	Central city	Ring
	(000)	(000)	(000)	(Pct.)	(Pct.)
Employed nonmetro household heads	973	396	576	40.7	59.3
Nonmigrant, 1970-75	658	261	399	39.5	60.5
Migrant, 1970-75	313	136	179	43.2	56.8
Nonmetro/Nonmetro, 1970-75	51	23	29	*	*
Metro/Nonmetro, 1970-75	262	113	150	43.0	56.8

Source: Special tabulations from 1975 AHS.

* Base less than 75,000.

INCOME OF COMMUTERS AND NONCOMMUTERS

Reference was made earlier to the generally positive relationship between income and rates of inter-county commuting for employment. For the household heads discussed here, median family income was $17,310 for commuters and $14,907 for noncommuters (Table I). There is some evidence that people of higher income status live where they wish because they can afford a longer trek to work and other evidence that they make the trip to another county to maximize earnings. The literature is inconclusive on this matter (18). Both circumstances undoubtedly exist. The suitability of housing at the price a family can afford, preferences as to size of community, considerations of relative safety, the availability of education facilities, and many other factors are, of course, determinants of residential location. It is well known that these factors are associated with inter-county commuting for employment, but the data to explore their significance were not available in the AHS.

With the exception of heads who had moved between two nonmetro areas, commuters in each residence and mobility group shown in Table I had higher median incomes than did the noncommuters. In general, the relationship between income and residence and mobility status observed in other research (2) was found in the AHS data for employed household heads. Whether they were commuters or noncommuters, metro nonmigrants and metro/metro migrants had the highest incomes, and nonmetro nonmigrant and nonmetro/nonmetro migrants had the lowest. Heads moving between metro and nonmetro areas were in an intermediate position.

Similar to the findings of previous research based on the March 1975 CPS (2), there was little difference in the incomes of household heads who had moved from metro to nonmetro locations and those who had made the opposite move observed here (Table J). The medians of $13,645 and $14,379 were not significantly different from each other in terms of their numbers in the AHS sample, and the index of dissimilarity between the percentage distributions on income was a very low 4.4. Moreover, the AHS data provide additional evidence that as far as their impact on the nonmetro population is concerned, the metro/nonmetro migrants did not have a negative effect in terms of income. On the average, where the numbers are large enough to permit

Table I--Median family income, for employed household heads,* by residence and mobility status 1975

Residence and Mobility status	Household heads with family income			Median family income		
	Total (000)	Commuter (000)	Non-commuter (000)	Total (Dol.)	Commuter (Dol.)	Non-commuter (Dol.)
Employed household heads, reporting commuter status	36,178	8,413	27,765	15,495	17,310	14,907
Nonmigrant, 1970-75	28,511	5,782	22,729	15,648	17,241	15,181
Migrant, 1970-75	7,667	2,631	5,036	14,926	17,459	13,983
Nonmetro, 1975	9,698	2,017	7,681	13,076	13,685	12,907
Nonmigrant, 1970-75	7,495	1,415	6,080	13,094	13,500	12,992
Nonmetro/Nonmetro, 1970-75	939	240	699	12,278	12,808	12,093
Metro/Nonmetro, 1970-75	1,265	363	902	13,645	15,248	13,020
Metro, 1975	26,477	6,397	20,079	16,736	18,523	16,088
Nonmigrant, 1970-75	21,016	4,367	16,649	16,880	18,559	16,384
Metro/Metro, 1970-75	4,427	1,796	2,631	16,665	18,686	15,017
Nonmetro/Metro, 1970-75	1,031	237	794	14,379	16,667	13,790

Source: Appendix A, tables 1-11.

* Relates to heads with families who had income in 1975 rather than to all employed heads of households.

conclusions, the median income of metro/nonmetro migrants was about the same or higher than that of other nonmetro heads, whether nonmigrant or migrant, commuter or noncommuter.

Table J--Family income, for employed nonmetro heads, by mobility status, and for nonmetro/metro migrants, 1975

Family Income	Number of heads and percentage distribution of family income			
	Nonmetro: nonmigrants	Nonmetro/: Nonmetro migrants	Metro/ : Nonmetro: migrants	Nonmetro/ Metro migrants
Number (000)	7,495	939	1,265	1,031
Distribution (Pct.)	100.0	100.0	100.0	100.0
Under $3,000	3.0	4.2	1.8	1.8
$3,000-$4,999	5.6	5.6	5.0	3.2
$5,00-$6,999	8.5	8.0	8.7	8.1
$7,000-$9,999	15.5	18.5	14.6	12.6
$10,000-$14,999	28.4	30.0	27.3	27.7
$15,000-$24,999	28.0	26.4	32.4	34.6
$25,000 and over	11.2	7.2	10.2	11.9
Median	$13,094	$12,278	$13,645	$14,379
Standard error	$123	$329	$312	$340

Source: Appendix A, tables 5, 6, 7, and 11.

Among inter-county commuters, male heads who worked in a different metro county from that in which they lived had the highest median family income $19,201 (Table K). They are in large part the suburban commuters. Their income was substantially higher than that of metro residents who commuted to nonmetro locations. Among the nonmetro commuters, those who went to metro areas to work had higher median income ($14,901) than those who commuted to another nonmetro county ($13,189). The income of those working in Ring counties appears to be higher than that of the group who commuted to the Central Cities, but because of the small numbers involved the difference is not significant in terms of the AHS sample.

The same general patterns of income differences were observed among white male metro/nonmetro migrants who commuted to other counties for employment (Table L). Highest incomes occurred among those working in metro counties and the difference between those in Ring and Central Cities was not statistically significant. Lowest incomes occurred among those commuting to nonmetro counties. For

Table K--Median family income for male inter-county commuters, by location of residence and place of work, 1975

Location of residence and place of work in 1975	Male inter-county commuters		
	Number (000)	Median family income (Dol.)	Standard error (Dol.)
Commuters	7,906	17,779	171
Residence nonmetro	1,919	13,943	228
Place of work metro	870	14,931	519
Central City	365	14,421	535
Ring	505	15,500	648
Place of work nonmetro	1,048	13,189	297
Residence metro	5,987	19,019	189
Place of work metro	5,438	19,201	196
Place of work nonmetro	549	16,856	730

Source: Special tabulations from 1975 AHS.

Table L--Median family income for employed white male household heads who moved between metro and nonmetro areas, by commuter status and place of work, 1975

Commuter status and place of work in 1975	Metro/Nonmetro migrants			Nonmetro/Metro migrants		
	Number (000)	Median family income (Dol.)	Standard error (Dol.)	Number (000)	Median family income (Dol.)	Standard error (Dol.)
Employed*	1,330	13,965	303	1,041	14,929	502
Noncommuter	828	13,466	336	711	14,136	415
Commuter	336	15,560	826	208	17,580	943
Place of work -- metro	225	16,702	968	148	17,676	1,036
Central city	100	16,184	1,585	N.A.	-	-
Ring	123	17,090	1,220	N.A.	-	-
Place of work -- nonmetro	110	13,750	938	61	17,273**	2,130

Source: Special tabulations from 1975 AHS.

* Total includes N.A. on commuter status. ** Base less than 75,000.

nonmetro/metro migrants, on the other hand, there were no real differences in income between those commuting to other metro areas or to nonmetro locations.

In general, inter-residential commuting probably had the effect of raising the overall income of metro/nonmetro migrants and not changing or slightly dampening the median for people moving in the other direction. The hypothesis that there is less difference than one might expect in the overall medians for the two migrant groups because of commuting was supported to some extent. However, the proportions of these groups commuting inter-residentially were somewhat less than had been anticipated. They were about 17 percent for metro/nonmetro migrants and only about 6 percent for heads moving in the opposite direction. Thus, similarity in income stems largely from earnings in areas of residence rather than from the impact differentials in earnings associated with commuting.

JOURNEY TO WORK

For household heads not working at home and reporting to a fixed location, the prevalent mode of transportation to work in 1975 was the automobile. A majority of them (around 70 percent) traveled alone (Table M). The major differences in mode of transportation between nonmetro and metro residents were the proportions who traveled in automobiles with other people (higher among the nonmetro) and those who used public transportation (higher among the metro). Such public service is generally not available for nonmetro people. A higher proportion of nonmetro heads worked at home (tables 12-22), and a slightly higher proportion of them walked to work. The proportions using the various modes of transportation did not differ significantly among the resident and mobility classes.

Median travel time to work in 1975 was 21 minutes and the median distance was 7 miles. Nonmetro residents took less time, on the average, and went shorter distances to work than did the metro residents (Table N and O). It is our clear impression that this latter point is not generally understood. A minority of rural and small town residents engage in lengthy commuting trips, e.g. 16 percent of them worked 20 miles or more away from home. However, some 54 percent worked less than 5 miles from home (exclusive of those who worked at home). By contrast, among employed metro heads, 14 percent commuted 20 miles or more each way, and 38 percent went less than 5 miles. Thus, the slightly greater percentage of nonmetro heads commuting lengthy distances is more than counterbalanced by the disproportionate number who work close to home. Median trip length was 4.6 miles for nonmetro heads and 7.6 miles for metro heads.

Metro/nonmetro migrants took more time and went farther than did the other nonmetro residents, but even so traveled shorter median distances than any mobility class of metro heads. Metro/metro migrants spent the most time in transit (a median of 24 minutes each way) and went the farthest (9.3 miles median) of any of the residence and mobility groups. Thus it is the suburban-dominated group of recent metro/metro migrants that proves to have the greatest travel requirements in worker commuting.

In comparing commuters and noncommuters, a larger proportion of the former were accompanied by other people in car pools or used public

Table M--Mode of transportation to work, for employed household heads, by residence and mobility status, 1975

Residence and Mobility Status	Number (000)	Total (Pct.)	Mode of transportation*: Auto or truck: Alone (Pct.)	Auto or truck: With others (Pct.)	Public transportation (Pct.)	Walks only (Pct.)	Other (Pct.)
Employed household heads, reporting commuter status	41,795	100.0	70.2	18.1	6.1	4.4	1.2
Nonmigrant, 1970-75	32,248	100.0	70.5	17.9	6.3	4.4	1.0
Migrant, 1970-75	9,547	100.0	69.3	18.9	5.8	4.2	1.8
Nonmetro, 1975	10,275	100.0	70.6	21.5	.6	5.9	1.4
Nonmigrant, 1970-75	7,742	100.0	70.3	21.9	.6	6.0	1.2
Nonmetro/Nonmetro, 1970-75	1,095	100.0	71.5	19.8	.6	6.1	1.9
Metro/Nonmetro, 1970-75	1,443	100.0	71.2	20.4	.6	5.5	2.3
Metro, 1975	31,520	100.0	70.1	17.0	7.9	3.9	1.1
Nonmigrant, 1970-75	24,506	100.0	70.5	16.6	8.0	3.9	1.0
Metro/Metro, 1970-75	5,642	100.0	68.2	18.3	8.4	3.3	1.8
Nonmetro/Metro, 1970-75	1,370	100.0	70.0	18.9	4.5	5.1	1.5

Source: Appendix A, tables 12-22.

* Omitted were household heads who worked at home or had no fixed place of work.

Table N--Time traveled to work, for employed household heads, by residence and mobility status, 1975

Residence and Mobility Status	Minutes*							
	Number (000)	Total (Pct.)	Under 15 (Pct.)	15-29 (Pct.)	30-44 (Pct.)	45-59 (Pct.)	60 and over (Pct.)	Median (Minutes)
Employed household heads, reporting commuter status	41,693	100.0	36.7	35.1	16.8	6.0	5.4	20.7
Nonmigrant, 1970-75	32,155	100.0	37.1	35.5	16.7	5.8	5.0	20.5
Migrant, 1970-75	9,538	100.0	35.7	34.0	17.2	6.6	6.5	21.3
Nonmetro, 1975	10,238	100.0	51.8	27.5	11.5	4.2	5.0	14.5
Nonmigrant, 1970-75	7,715	100.0	52.5	27.5	11.1	4.1	4.8	14.3
Nonmetro/Nonmetro, 1970-75	1,089	100.0	53.4	26.1	13.0	3.2	4.2	14.0
Metro/Nonmetro, 1970-75	1,440	100.0	46.7	28.5	12.6	5.6	6.6	16.8
Metro, 1975	31,456	100.0	31.8	37.6	18.5	6.5	5.5	22.2
Nonmigrant, 1970-75	24,440	100.0	32.2	38.0	18.4	6.3	5.1	22.0
Metro/Metro, 1970-75	5,642	100.0	28.1	36.5	19.8	7.9	7.8	24.0
Nonmetro/Metro, 1970-75	1,369	100.0	41.2	35.9	14.8	4.7	3.4	18.7

Source: Appendix A, tables 12-22.

* Omitted were household heads who worked at home or had no fixed place of work.

Table O--Distance traveled to work, for employed household heads, by residence and mobility status, 1975

Residence and Mobility Stauts	Number (000)	Miles*							
		Total (Pct.)	Under 1 (Pct.)	1-4 (Pct.)	5-9 (Pct.)	10-19 (Pct.)	20-29 (Pct.)	30 and over (Pct.)	Median (Miles)
Employed household heads, reporting commuter status	41,548	100.0	10.7	31.7	20.7	22.5	8.4	6.2	6.9
Nonmigrant, 1970-75	32,057	100.0	11.0	32.4	21.0	22.4	7.8	5.5	6.6
Migrant, 1970-75	9,491	100.0	9.6	29.2	19.5	22.8	10.5	8.7	7.9
Nonmetro, 1975	10,238	100.0	18.2	35.8	15.0	15.2	7.6	8.1	4.6
Nonmigrant, 1970-75	7,710	100.0	18.9	36.0	15.0	15.3	7.2	7.6	4.5
Nonmetro/Nonmetro, 1970-75	1,096	100.0	18.5	38.2	12.8	14.5	9.2	6.8	4.3
Metro/Nonmetro, 1970-75	1,439	100.0	14.5	32.7	16.4	15.4	9.1	11.9	5.9
Metro, 1975	31,311	100.0	8.2	30.3	22.5	24.8	8.6	5.6	7.6
Nonmigrant, 1970-75	24,347	100.0	8.4	31.2	22.9	24.7	8.0	4.8	7.3
Metro/Metro, 1970-75	5,598	100.0	6.3	25.4	21.2	26.3	11.8	9.0	9.3
Nonmetro/Metro, 1970-75	1,372	100.0	11.1	34.1	20.8	20.9	7.7	5.4	6.2

Source: Appendix A, tables 12-22.

* Omitted were household heads who worked at home or had no fixed place of work.

transportation to get to work. As is to be expected, more noncommuters, walked, rode bicycles or motorcycles, or used other means to reach their places of employment. And, commuters, on the average, lived farther from work and took longer to get there than persons working in their home counties. The trip required three-quarters of an hour or more for about a third of all commuters and covered twenty miles or more for nearly half.

In terms of time and distance to work, nonmetro commuters took about the same time, on the average, but went farther than metro commuters. About twice the proportion of nonmetro compared to metro commuters traveled over 30 miles to work. Among noncommuters, nonmetro heads traveled only a few miles to work in a few minutes. Less than a fifth of them lived as far as ten miles from work compared to a fourth of the metro noncommuters.

SUMMARY AND IMPLICATIONS

Although the data presented in this report are for the year 1975, there is no reason to believe that the patterns they describe have changed perceptibly as yet. If traveling across county lines is taken as an approximation of commuting for work outside of one's own home community (the conventional measure used in the Census of Population), then 22 percent of all employed U. S. household heads were commuters in 1975. Nonmetro heads were somewhat less likely to be commuters than were metro heads, although this difference is influenced in part by the fact that metro counties are smaller on the average than are nonmetro counties (mean diameters are about 28 and 32 miles, respectively). Thus, a trip of a given length is more likely to be inter-county in the metro setting.

Inter-county commuting rates varied by social and demographic characteristics. In general, commuting was more prevalent among men than women and slightly higher for whites than Blacks and in the South than in the rest of the country. Commuting tended to increase until age 25-34, presumably as jobs became more exclusively full-time and of a career nature, and then to decline after age 45. The differences among age groups may be partly of a cohort nature, associated with the recency of high commuting rates (inter-county commuting has increased since it was first measured in 1960). Also they may reflect job changes among older persons associated with retirement from one's career work and more recent employment in a secondary job in or closer to the home community. The lower rates of commuting among late middle-aged and older workers are particularly evident in nonmetro areas. The higher growth of commuting in nonmetro than in metro areas since 1960 has probably affected younger workers the most and helped to induce the age patterns shown, as would the rather high average age of noncommuting farmers, who comprise a greater fraction of workers in nonmetro areas.

The generally higher income level of commuters indicates that commuting is rewarded and that income is a strong incentive to commuting, but it may also reflect the greater ability of people with good income to live where they wish. There is no way of distinguishing between the two effects. In any event, it is clear that the commuting of nonmetro household heads to metro jobs yields average income levels above those obtainable in nonmetro work and thereby contributes

somewhat disproportionately to the total income of nonmetro communities. There is no such complementary benefit to metro areas from out-commuting to nonmetro employment.

The positive relationship between commuting and income did not exist between education and commuting. Education is basically not associated with commuting in metro areas and somewhat negatively so in nonmetro areas. Most notably, a fourth of all employed household heads who were college graduates were commuters in metro areas, but only a seventh of them commuted in nonmetro areas. This may be the most important difference between metro and nonmetro household heads in the socio-economic context of worker commuting.

Only nine percent of the nonmetro employed household heads commuted to metro jobs, and from data not presented here it can be reliably inferred that other family members had even lower rates. The combined percentage of metro commuting for all nonmetro employed people may not be more than seven percent. Given the fact that more than half of the nonmetro population lives in counties that adjoin metro areas, this is a rather low percentage. Despite the comparative ease of automotive commuting today, nonmetro areas are still overwhelmingly independent of metro areas as labor markets.

Among household heads who were recent migrants into nonmetro counties from metro areas, 17 percent worked in metro locations. The higher rate of commuting among these people -- double that of other nonmetro heads -- was to be expected. A number of them had moved to nonmetro counties for residential purposes only. Still others might not yet have found suitable jobs closer to their new homes. However, 17 percent is so low a fraction of all inmigrants that it lays to rest any lingering suspicions that the regrowth of nonmetro population in the 1970's was primarily caused by residential sprawl of metro workers into the next tier of nonmetro counties. The vast majority of newcomers into nonmetro communities have ended their work ties in the metro community and have taken jobs in the nonmetro sector. Those who do commute are somewhat distinctive from other nonmetro commuters in the degree of negative association between education and commuting among them and in a more positive connection between income and commuting. The nonmetro anomaly of high income and relatively low education among commuters is at its peak among people who are recent migrants from metro areas.

The data also provide a measure of the reverse type of commuting; that is, the extent to which metro residents work in nonmetro areas. Such workers are fewer in number than nonmetro-to-metro commuters -- as might be anticipated, given the generally lower wage levels of nonmetro jobs. However, there are about five of them for every eight nonmetro-to-metro commuters. On balance, this meant a net absolute

accrual to metro areas nationally of only about .3 million household heads in the commuting exchange.

The journey to work is everywhere dominated by workers traveling by car and driving alone. The only meaningful residential differentials were the greater use of public transportation in metro areas, and the higher levels of walking, working at home, or riding with others in nonmetro areas.

The latter point is rather interesting in that there might be an expectation of lower joint use of autos in the dispersed low density population of rural and small town areas than in large cities and suburbs. Nevertheless, a sizeable proportion of nonmetro household heads who work away from home (21 percent) have worked out arrangements involving other people, compared with a somewhat lower figure for metro heads (17 percent).

Despite the more dispersed settlement pattern of the nonmetro population, nonmetro workers were found to travel a shorter median distance to work than did metro workers, even when persons working at home -- such as most farmers -- are left out of the calculations. There is a duality in the commuting patterns of nonmetro heads. Large numbers of them have very short journeys to work, but many of the commuters take lengthy and, perforce, expensive trips to obtain the employment they want. Lengthy commutations were found particularly among the nonmetro newcomers from metro areas.

Median amounts of time spent in going to work were modest, averaging just 14.5 minutes for nonmetro heads working away from home and 22 minutes for metro heads. However, at the extremes, 5 percent of all heads working away from home spent an hour or more each way in going to work, or a minimum of 2 hours a day. This involved more than 2 million people.

A great deal of inter-county commuting and other long distance travel to work in rural areas is done because of the lack of suitable employment within the home community. The rapid growth of nonagricultural work in rural areas and small towns in the last 10 to 15 years has probably mitigated this problem. However, it has also drawn many people into the nonfarm labor force who previously did not work away from home, or who would have moved to a metro area in the absence of local work.

As has been pointed out, low income people do less commuting than those with higher incomes. One of the reasons for this lower rate of commuting -- and thus lower income -- is the lack of transportation (5) (17). Often low income people do not have automobiles and do not have access to public transportation. If they are to work at all, they must of necessity take those jobs available in their home

communities, which are often low-paying. Improved rural transportation facilities would almost certainly increase the number and proportion of workers who commute beyond their local communities.

A recurrent question about the future of continued growth of population in rural areas is the potential impact of either shortages of gasoline or ever higher prices. Judging from the AHS data, the nonmetro counties that are within commuting range of metro employment may be the most vulnerable, in that recent migrants into nonmetro communities from metro areas are both the most likely to commute and to have lengthy trips. The gasoline price rise and any future supply squeeze could reduce the willingness or ability of people to locate beyond the metro area (or even within its outer fringes) if they wish to retain metro employment.

It is also possible that the same factors could restrain the recent propensity of people in rural counties far removed from metro areas to disperse into the countryside, rather than live in town. Such a dispersed trend was one of the most characteristic (and unforeseen) aspects of rural population growth in the 1970's (1). However, despite this trend, the data on journey to work of household heads do not show any disproportionate reliance of nonmetro people on automotive commuting, driving alone, or on long average trip lengths in comparison with the metro population. There is a lack of public transportation alternatives in rural areas, but the proportion of metro heads using public transportation is so low (8 percent) as to suggest limited potential even for metro public transport to absorb any large fraction of present automobile riders.

The data presented in this report do not answer all the questions concerning job commuting and its relationship to residential status and recent migration. However, they provide estimates of many aspects of this topic whose parameters have previously been unknown and considerably advance our understanding of an increasingly important subject.

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TABLES 1-11 (COMMUTING PATTERNS)

Table 1 -- Total employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	43,486	100.0	9,506	100.0	33,980	100.0	21.9
Whites	38,784	89.2	8,609	90.6	30,175	88.8	22.2
Blacks	4,011	9.2	728	7.7	3,283	9.7	18.2
Others	690	1.6	170	1.8	520	1.5	24.6
Males	36,555	84.1	8,510	89.5	28,045	82.5	23.3
Females	6,931	15.9	996	10.5	5,935	17.5	14.4
South	13,749	31.6	3,232	34.0	10,517	31.0	23.5
North and West	29,737	68.4	6,274	66.0	23,463	69.0	21.1
Age (Years)							
18-19	400	.9	55	.6	345	1.0	13.8
20-24	4,062	9.3	688	7.2	3,374	9.9	16.9
25-34	11,855	27.3	2,922	30.7	8,933	26.3	24.6
35-44	9,340	21.5	2,253	23.7	7,087	20.9	24.1
45-54	9,442	21.7	2,093	22.0	7,349	21.6	22.2
55-64	6,782	15.6	1,287	13.5	5,495	16.2	19.0
65 and over	1,607	3.7	209	2.2	1,398	4.1	13.0
Median	40.8		39.8		41.1		
Standard error	.1		.3		.2		
Education (Years)							
Elementary	4,916	11.3	983	10.3	3,933	11.6	20.0
High school, 1-3	6,189	14.2	1,278	13.4	4,911	14.5	20.6
4	16,135	37.1	3,683	38.7	12,452	36.6	22.8
College, 1-3	7,358	16.9	1,498	15.8	5,860	17.2	20.4
4	4,679	10.8	1,118	11.8	3,561	10.5	23.9
5	4,209	9.7	946	10.0	3,263	9.6	22.5
Pct. with some college		37.4		37.5		37.3	
Standard error		.3		.6		.3	
Income[1]	36,178	100.0	8,413	100.0	27,765	100.0	23.3
Under $3,000	699	1.9	108	1.3	591	2.1	15.5
$3,000-$4,999	1,249	3.5	184	2.2	1,065	3.8	14.7
$5,000-$6,999	2,126	5.9	375	4.5	1,751	6.3	17.6
$7,000-$9,999	4,166	11.5	789	9.4	3,377	12.2	18.9
$10,000-$14,999	9,235	25.5	2,002	23.8	7,233	26.1	21.7
$15,000-$24,999	12,399	34.3	3,240	38.5	9,159	33.0	26.1
$25,000 and over	6,304	17.4	1,715	20.4	4,589	16.5	27.2
Median	$15,495		$17,310		$14,907		
Standard error	$93		$171		$70		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households.

Source: Special tabulations made by the Bureau of the Census from the 1975 Annual Housing Survey and the Travel to Work Supplement for cooperative research of the Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, and the Institute for Behavioral Research, University of Georgia, relating to internal migration. Household heads for whom commuter status was not reported were omitted. Numbers in each part of the table were independently rounded.

Table 2--Nonmigrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	33,689	100.0	6,418	100.0	27,271	100.0	19.1
Whites	29,757	88.3	5,759	89.7	23,998	88.0	19.4
Blacks	3,402	10.1	555	8.6	2,847	10.4	16.3
Others	530	1.5	104	1.6	426	1.6	19.6
Males	28,219	83.8	5,749	89.5	22,471	82.4	20.4
Females	5,470	16.2	672	10.5	4,799	17.6	12.3
South	10,312	30.6	2,124	33.1	8,188	30.0	20.6
North and West	23,377	69.4	4,294	66.9	19,083	70.0	18.4
Age (Years)							
18-19	250	.7	35	.5	215	.8	14.0
20-24	2,441	7.2	353	5.5	2,088	7.7	14.5
25-34	7,470	22.2	1,432	22.3	6,038	22.1	19.2
35-44	7,461	22.1	1,584	24.7	5,877	21.6	21.2
45-54	8,300	24.6	1,687	26.3	6,613	24.3	20.3
55-64	6,256	18.6	1,142	17.8	5,114	18.8	18.3
65 and over	1,511	4.5	186	2.9	1,325	4.9	12.3
Median	44.0		43.8		44.0		
Standard error	.2		.3		.2		
Education (Years)							
Elementary	4,398	13.1	816	12.7	3,582	13.1	18.6
High school, 1-3	5,274	15.7	983	15.3	4,291	15.7	18.6
4	13,074	38.8	2,626	40.9	10,448	38.3	20.1
College, 1-3	5,242	15.6	886	13.8	4,356	16.0	16.9
4	2,959	8.8	598	9.3	2,361	8.7	20.2
5	2,740	8.1	513	8.0	2,227	8.2	18.7
Pct. with some college		32.5		31.1		32.9	
Standard error		.4		.7		.3	
Income[1]	28,511	100.0	5,782	100.0	22,729	100.0	20.3
Under $3,000	559	2.0	74	1.3	485	2.1	13.2
$3,000-$4,999	987	3.5	131	2.3	856	3.8	13.3
$5,000-$6,999	1,639	5.7	268	4.6	1,371	6.0	16.4
$7,000-$9,999	3,175	11.1	556	9.6	2,619	11.5	17.5
$10,000-$14,999	7,262	25.5	1,366	23.6	5,896	25.9	18.8
$15,000-$24,999	9,783	34.3	2,213	38.3	7,570	33.3	22.6
$25,000 and over	5,106	17.9	1,174	20.3	3,932	17.3	23.0
Median	$15,648		$17,241		$15,181		
Standard error	$104		$208		$121		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 3 -- Migrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	9,797	100.0	3,088	100.0	6,709	100.0	31.5
Whites	9,027	92.1	2,850	92.3	6,177	92.1	31.6
Blacks	609	6.2	173	5.6	436	6.5	28.4
Others	160	1.6	66	2.1	94	1.4	41.3
Males	8,336	85.1	2,761	89.5	5,574	83.1	33.1
Females	1,461	14.9	324	10.5	1,136	16.9	22.2
South	3,437	35.1	1,108	35.9	2,329	34.7	32.2
North and West	6,360	64.9	1,980	64.1	4,380	65.3	31.1
Age (Years)							
18-19	150	1.5	20	.7	130	1.9	13.3
20-24	1,621	16.5	335	10.8	1,286	19.2	20.7
25-34	4,385	44.7	1,490	48.3	2,895	43.1	34.0
35-44	1,879	19.2	669	21.7	1,210	18.0	35.6
45-54	1,142	11.7	406	13.1	736	11.0	35.6
55-64	526	5.4	145	4.7	381	5.7	27.6
65 and over	96	1.0	23	.7	73	1.1	24.0
Median	32.1		33.0		31.7		
Standard error	.1		.2		.2		
Education (Years)							
Elementary	518	5.3	167	5.4	351	5.2	32.2
High school, 1-3	915	9.3	295	9.6	620	9.2	32.2
4	3,061	31.2	1,057	34.3	2,004	29.8	34.5
College, 1-3	2,116	21.6	612	19.8	1,504	22.4	28.9
4	1,720	17.6	520	16.9	1,200	17.9	30.2
5	1,469	15.0	433	14.0	1,036	15.4	29.5
Pct. with some college		54.2		50.7		55.7	
Standard error		.6		1.1		.7	
Income[1]	7,667	100.0	2,631	100.0	5,036	100.0	34.3
Under $3,000	140	1.8	34	1.3	106	2.1	24.3
$3,000-$4,999	262	3.4	53	2.0	209	4.2	20.2
$5,000-$6,999	487	6.4	107	4.1	380	7.5	22.0
$7,000-$9,999	991	12.9	233	8.9	758	15.1	23.5
$10,000-$14,999	1,973	25.7	636	24.2	1,337	26.5	32.2
$15,000-$24,999	2,616	34.1	1,027	39.0	1,589	31.6	39.3
$25,000 and over	1,198	15.6	541	20.6	657	13.0	45.2
Median	$14,926		$17,459		$13,983		
Standard error	$178		$302		$160		

[1] Relates to heads with families who had income in 1975 rather to all employed heads of households.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 4 -- Nonmetro employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	11,222	100.0	2,192	100.0	9,030	100.0	19.5
Whites	10,453	93.1	2,029	92.6	8,424	93.3	19.4
Blacks	692	6.2	145	6.6	547	6.1	21.0
Others	78	.7	18	.8	60	.7	23.1
Males	9,777	87.1	2,029	92.6	7,748	85.8	20.8
Females	1,445	12.9	163	7.4	1,282	14.2	11.3
South	4,571	40.7	1,069	48.8	3,502	38.8	23.4
North and West	6,650	59.3	1,122	51.2	5,528	61.2	16.9
Age (Years)							
18-19	129	1.1	26	1.2	103	1.1	20.2
20-24	1,108	9.9	197	9.0	911	10.1	17.8
25-34	2,959	26.4	697	31.8	2,262	25.0	23.6
35-44	2,289	20.4	494	22.5	1,795	19.9	21.6
45-54	2,407	21.4	462	21.1	1,945	21.5	19.2
55-64	1,809	16.1	285	13.0	1,524	16.9	15.8
65 and over	521	4.6	31	1.4	490	5.4	6.0
Median	41.2		38.6		41.9		
Standard error	.3		.6		.3		
Education (Years)							
Elementary	1,864	16.6	370	16.9	1,494	16.5	19.8
High school, 1-3	1,866	16.6	360	16.4	1,506	16.7	19.3
4	4,403	39.2	963	43.9	3,440	38.1	21.9
College, 1-3	1,446	12.9	262	12.0	1,184	13.1	18.1
4	888	7.9	134	6.1	754	8.3	15.1
5	755	6.7	103	4.7	652	7.2	13.6
Pct. with some college		27.5		22.8		28.7	
Standard error		.5		1.1		.6	
Income[1]	9,698	100.0	2,017	100.0	7,681	100.0	20.8
Under $3,000	283	2.9	42	2.1	241	3.1	14.8
$3,000-$4,999	533	5.5	83	4.1	450	5.9	15.6
$5,000-$6,999	817	8.4	128	6.3	689	9.0	15.7
$7,000-$9,999	1,521	15.7	314	15.6	1,207	15.7	20.6
$10,000-$14,999	2,755	28.4	599	29.7	2,156	28.1	21.7
$15,000-$24,999	2,758	28.4	672	33.3	2,086	27.2	24.4
$25,000 and over	1,031	10.6	179	8.9	852	11.1	17.4
Median	$13,076		$13,685		$12,907		
Standard error	$108		$227		$123		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 5 -- Nonmetro nonmigrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.
Total, 18 years and over	8,566	100.0	1,524	100.0	7,042	100.0	17.8
Whites	7,906	92.3	1,391	91.3	6,515	92.5	17.6
Blacks	598	7.0	120	7.9	478	6.8	20.1
Others	62	.7	13	.9	49	.7	*
Males	7,430	86.7	1,402	92.0	6,028	85.6	18.9
Females	1,139	13.3	125	8.2	1,014	14.4	11.0
South	3,561	41.6	760	49.9	2,801	39.8	21.3
North and West	5,005	58.4	764	50.1	4,241	60.2	15.3
Age (Years)							
18-19	75	.9	17	1.1	58	.8	22.7
20-24	677	7.9	120	7.9	557	7.9	17.7
25-34	1,819	21.2	399	26.2	1,420	20.2	21.9
35-44	1,774	20.7	352	23.1	1,422	20.2	19.8
45-54	2,078	24.3	365	24.0	1,713	24.3	17.6
55-64	1,646	19.2	243	15.9	1,403	19.9	14.8
65 and over	498	5.8	30	2.0	468	6.6	6.0
Median	44.7		41.4		45.4		
Standard error	.3		.7		.3		
Education (Years)							
Elementary	1,652	19.3	301	19.8	1,351	19.2	18.2
High school, 1-3	1,565	18.3	287	18.8	1,278	18.1	18.3
4	3,451	40.3	675	44.3	2,776	39.4	19.6
College 1-3	955	11.1	145	9.5	810	11.5	15.2
4	484	5.7	64	4.2	420	6.0	13.2
5	456	5.3	53	3.5	403	5.7	11.6
Pct. with some college		22.1		17.2		23.2	
Standard error		.5		1.2		.6	
Income[1]	7,495	100.0	1,415	100.0	6,080	100.0	18.9
Under $3,000	222	3.0	22	1.6	200	3.3	9.9
$3,000-$4,999	416	5.6	65	4.6	351	5.8	15.6
$5,000-$6,999	635	8.5	95	6.7	540	8.9	15.0
$7,000-$9,999	1,159	15.5	228	16.1	931	15.3	19.7
$10,000-$14,999	2,126	28.4	425	30.0	1,701	28.0	20.0
$15,000-$24,999	2,101	28.0	461	32.6	1,640	27.0	21.9
$25,000 and over	836	11.2	119	8.4	717	11.8	14.2
Median	$13,094		$13,500		$12,992		
Standard error	$123		$268		$139		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households. *Base less than 75,000.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 6 -- Nonmetro/nonmetro migrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	1,143	100.0	265	100.0	878	100.0	23.2
Whites	1,095	95.8	258	97.4	837	95.3	23.6
Blacks	41	3.6	5	1.9	36	4.1	*
Others	7	.6	2	.8	5	.6	*
Males	987	86.4	248	93.6	739	84.2	25.1
Females	157	13.7	17	6.4	140	15.9	10.8
South	445	38.9	128	48.3	317	36.1	28.8
North and West	698	61.1	137	51.7	561	63.9	19.6
Age (Years)							
18-19	37	3.2	5	1.9	32	3.6	*
20-24	223	19.5	48	18.1	175	19.9	21.5
25-34	476	41.6	119	44.9	357	40.7	25.0
35-44	187	16.4	50	18.9	137	15.6	26.7
45-54	136	11.9	31	11.7	105	12.0	22.8
55-64	78	6.8	13	4.9	65	7.4	16.7
65 and over	8	.7	1	.4	7	.8	*
Median	31.6		31.8		31.5		
Standard error	.4		.8		.5		
Education (Years							
Elementary	128	11.2	43	16.2	85	9.7	33.6
High school, 1-3	124	10.8	24	9.1	100	11.4	19.4
4	406	35.5	113	42.6	293	33.4	27.8
College, 1-3	208	18.2	45	17.0	163	18.6	21.6
4	172	15.0	28	10.6	144	16.4	16.3
5	109	9.5	15	5.7	94	10.7	13.8
Pct. with some college		42.6		32.8		44.7	
Standard error		1.8		3.5		2.0	
Income[1]	939	100.0	240	100.0	699	100.0	25.6
Under $3,000	39	4.2	9	3.8	30	4.3	*
$3,000-$4,999	53	5.6	9	3.8	44	6.3	*
$5,000-$6,999	75	8.0	17	7.1	58	8.3	22.7
$7,000-$9,999	174	18.5	44	18.3	130	18.6	25.3
$10,000-$14,999	282	30.0	73	30.4	209	29.9	25.9
$15,000-$24,999	248	26.4	71	29.6	177	25.3	28.6
$25,000 and over	68	7.2	17	7.1	51	7.3	*
Median	$12,278		$12,808		$12,093		
Standard error	$329		$642		$383		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households. * Base less than 75,000.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 7 -- Metro/nonmetro migrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	1,513	100.0	402	100.0	1,111	100.0	26.6
Whites	1,451	95.9	380	94.5	1,071	96.4	26.2
Blacks	52	3.4	19	4.7	33	3.0	*
Others	10	.7	3	.7	7	.6	*
Males	1,362	90.0	380	94.5	982	88.4	27.9
Females	153	10.1	23	5.7	130	11.7	15.0
South	565	37.3	180	44.8	385	34.7	31.9
North and West	948	62.7	222	55.2	726	65.3	23.4
Age (Years							
18-19	18	1.2	5	1.2	13	1.2	*
20-24	207	13.7	29	7.2	178	16.0	14.0
25-34	665	44.0	180	44.8	485	43.7	27.1
35-44	327	21.6	92	22.9	235	21.2	28.1
45-54	194	12.8	66	16.4	128	11.5	34.0
55-64	86	5.7	30	7.5	56	5.0	34.9
65 and over	17	1.1	1	.2	16	1.4	*
Median	33.0		34.3		32.5		
Standard error	.4		.7		.4		
Education (Years)							
Elementary	86	5.7	28	7.0	58	5.2	32.6
High school, 1-3	175	11.6	48	11.9	127	11.4	27.4
4	546	36.1	175	43.5	371	33.4	32.1
College, 1-3	285	18.8	73	18.2	212	19.1	25.6
4	234	15.5	44	10.9	190	17.1	18.8
5	187	12.4	35	8.7	152	13.7	18.7
Pct. with some college		46.7		37.7		49.9	
Standard error		1.6		2.9		1.8	
Income[1]	1,265	100.0	363	100.0	902	100.0	28.7
Under $3,000	23	1.8	10	2.8	13	1.4	*
$3,000-$4,999	63	5.0	9	2.5	54	6.0	*
$5,000-$6,999	110	8.7	18	5.0	92	10.2	16.4
$7,000-$9,999	185	14.6	41	11.3	144	16.0	22.2
$10,000-$14,999	345	27.3	100	27.5	245	27.2	29.0
$15,000-$24,999	410	32.4	141	38.8	269	29.8	34.4
$25,000 and over	129	10.2	44	12.1	85	9.4	34.9
Median	$13,645		$15,248		$13,020		
Standard error	$312		$810		$371		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households. * Base less than 75,000.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 8 -- Metro employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	32,263	100.0	7,314	100.0	24,949	100.0	22.7
Whites	28,331	87.8	6,580	90.0	21,751	87.2	23.2
Blacks	3,321	10.3	583	8.0	2,738	11.0	17.6
Others	613	1.9	152	2.1	461	1.8	24.8
Males	26,777	83.0	6,481	88.6	20,296	81.3	24.2
Females	5,486	17.0	833	11.4	4,653	18.7	15.2
South	9,177	28.4	2,163	29.6	7,014	28.1	23.6
North and West	23,087	71.6	5,151	70.4	17,936	71.9	22.3
Age (Years)							
18-19	271	.8	29	.4	242	1.0	10.7
20-24	2,954	9.2	491	6.7	2,463	9.9	16.6
25-34	8,895	27.6	2,224	30.4	6,671	26.7	25.0
35-44	7,051	21.9	1,759	24.0	5,292	21.2	24.9
45-54	7,035	21.8	1,631	22.3	5,404	21.7	23.2
55-64	4,972	15.4	1,002	13.7	3,970	15.9	20.2
65 and over	1,085	3.4	178	2.4	907	3.6	16.4
Median	40.7		40.2		40.9		
Standard error	.2		.3		.2		
Education (Years)							
Elementary	3,052	9.5	613	8.4	2,439	9.8	20.1
High School, 1-3	4,323	13.4	919	12.6	3,404	13.6	21.3
4	11,732	36.4	2,720	37.2	9,012	36.1	23.2
College, 1-3	5,911	18.3	1,235	16.9	4,676	18.7	20.9
4	3,791	11.8	984	13.5	2,807	11.3	26.0
5	3,454	10.7	843	11.5	2,611	10.5	24.4
Pct. with some college		40.8		41.9		40.5	
Standard error		.3		.7		.4	
Income[1]	26,477	100.0	6,397	100.0	20,079	100.0	24.2
Under $3,000	416	1.6	67	1.0	349	1.7	16.1
$3,000-$4,999	716	2.7	101	1.6	614	3.1	14.1
$5,000-$6,999	1,309	4.9	247	3.9	1,062	5.3	18.9
$7,000-$9,999	2,644	10.0	476	7.4	2,168	10.8	18.0
$10,000-$14,999	6,480	24.5	1,403	21.9	5,077	25.3	21.7
$15,000-$24,999	9,639	36.4	2,567	40.1	7,072	35.2	26.6
$25,000 and over	5,273	19.9	1,536	24.0	3,737	18.6	29.1
Median	$16,736		$18,523		$16,088		
Standard error	$102		$189		$121		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 9 -- Metro nonmigrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	25,123	100.0	4,894	100.0	20,229	100.0	19.5
Whites	21,851	87.0	4,368	89.3	17,483	86.4	20.0
Blacks	2,804	11.2	435	8.9	2,369	11.7	15.5
Others	468	1.9	91	1.9	377	1.9	19.4
Males	20,793	82.8	4,349	88.9	16,444	81.3	20.9
Females	4,332	17.2	547	11?2	3,785	18.7	12.6
South	6,751	26.9	1,364	27.9	5,387	26.6	20.2
North and West	18,372	73.1	3,530	72.1	14,842	73.4	19.2
Age (Years)							
18-19	175	.7	18	.4	157	.8	10.3
20-24	1,764	7.0	233	4.8	1,531	7.6	13.2
25-34	5,651	22.5	1,033	21.1	4,618	22.8	18.3
35-44	5,687	22.6	1,232	25.2	4,455	22.0	21.7
45-54	6,222	24.8	1,322	27.0	4,900	24.2	21.2
55-64	4,610	18.3	899	18.4	3,711	18.3	19.5
65 and over	1,013	4.0	156	3.2	857	4.2	15.4
Median	43.7		44.4		43.6		
*Standard error	.2		.3		.2		
Education (Years)							
Elementary	2,746	10.9	515	10.5	2,231	11.0	18.8
High school, 1-3	3,709	14.8	696	14.2	3,013	14.9	18.8
4	9,623	38.3	1,951	39.9	7,672	37.9	20.3
College, 1-3	4,287	17.1	741	15.1	3,546	17.5	17.3
4	2,475	9.9	534	10.9	1,941	9.6	21.6
5	2,284	9.1	460	9.4	1,824	9.0	20.1
Pct. with some college		36.0		35.4		36.1	
Standard error		.4		.8		.4	
Income[1]	21,016	100.0	4,367	100.0	16,649	100.0	20.8
Under $1,000	337	1.6	52	1.2	285	1.7	15.4
$1,000-$4,999	571	2.7	66	1.5	505	3.0	11.6
$5,000-$6,999	1,004	4.8	173	4.0	831	5.0	17.2
$7,000-$9,999	2,016	9.6	328	7.5	1,688	10.1	16.3
$10,000-$14,999	5,136	24.4	941	21.5	4,195	25.2	18.3
$15,000-$24,999	7,682	36.6	1,752	40.1	5,930	35.6	22.8
$25,000 and over	4,270	20.3	1,055	24.2	3,215	19.3	24.7
Median	$16,880		$18,559		$16,384		
Standard error	$114		$228		$132		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 10-- Metro/metro migrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	5,747	100.0	2,150	100.0	3,597	100.0	37.4
Whites	5,184	90.2	1,961	91.2	3,223	89.6	37.8
Blacks	437	7.6	132	6.1	305	8.5	30.2
Others	126	2.2	57	2.7	69	1.9	45.2
Males	4,844	84.3	1,898	88.3	2,946	81.9	39.2
Females	903	15.7	253	11.8	650	18.1	28.0
South	1,874	32.6	680	31.6	1,194	33.2	36.3
North and West	3,873	67.4	1,470	68.4	2,403	66.8	38.0
Age (Years)							
18-19	70	1.2	9	.4	61	1.7	*
20-24	851	14.8	224	10.4	627	17.4	26.3
25-34	2,629	45.7	1,043	48.5	1,586	44.1	39.7
35-44	1,141	19.9	479	22.3	662	18.4	42.0
45-54	686	11.9	286	13.3	400	11.1	41.7
55-64	308	5.4	91	4.2	217	6.0	29.5
65 and over	63	1.1	20	.9	43	1.2	*
Median	32.4		33.1		32.0		
Standard error	.2		.3		.2		
Education (Years)							
Elementary	248	4.3	91	4.2	157	4.4	36.7
High school, 1-3	500	8.7	198	9.2	302	8.4	39.6
4	1,667	29.0	683	31.8	984	27.4	41.0
College, 1-3	1,341	23.3	440	20.5	901	25.0	32.8
4	1,025	17.8	394	18.3	631	17.5	38.4
5	962	16.7	341	15.9	621	17.3	35.4
Pct. with some college		57.9		54.7		59.9	
Standard error		.8		1.3		1.0	
Income[1]	4,427	100.0	1,796	100.0	2,631	100.0	40.6
Under $3,000	50	1.3	15	.8	43	1.6	*
$3,000-$4,999	113	2.6	31	1.7	82	3.1	27.4
$5,000-$6,999	220	5.0	61	3.4	159	6.0	27.7
$7,000-$9,999	498	11.2	135	7.5	363	13.8	27.1
$10,000-$14,999	1,058	23.9	391	21.8	667	25.4	37.0
$15,000-$24,999	1,601	36.2	719	40.0	882	33.5	44.9
$25,000 and over	879	19.9	444	24.7	435	16.5	50.5
Median	$16,665		$18,686		$15,017		
Standard error	$252		$357		$352		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households. * Base less than 75,000.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 11 -- Nonmetro/metro migrant employed household heads, by inter-county commuter status and selected characteristics, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter		Commuting rate
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution	
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)	(Pct.)
Total, 18 years and over	1,392	100.0	269	100.0	1,123	100.0	19.3
Whites	1,296	93.1	251	93.3	1,045	93.1	19.4
Blacks	79	5.7	15	5.6	64	5.7	19.0
Others	17	1.2	3	1.1	14	1.2	*
Males	1,140	81.9	235	87.4	905	80.6	20.6
Females	253	18.2	35	13.0	218	19.4	13.8
South	549	39.4	117	43.5	432	38.5	21.3
North and West	843	60.6	152	56.5	691	61.5	18.0
Age (Years)							
18-19	29	2.1	3	1.1	26	2.3	*
20-24	338	24.3	33	12.3	305	27.2	9.8
25-34	614	44.1	146	54.3	468	41.7	23.8
35-44	221	15.9	48	17.8	173	15.4	21.7
45-54	126	9.1	22	8.2	104	9.3	17.5
55-64	56	4.0	13	4.8	43	3.8	*
65 and over	10	.7	3	1.1	7	.6	*
Median	30.4		31.7		30.0		
Standard error	.4		.7		.4		
Education (Years)							
Elementary	57	4.1	7	2.6	50	4.5	*
High school, 1-3	110	7.9	23	8.6	87	7.7	20.9
4	442	31.8	86	32.0	356	31.7	19.5
College, 1-3	284	20.4	55	20.4	229	20.4	19.4
4	293	21.0	58	21.6	235	20.9	19.8
5	205	14.7	40	14.9	165	14.7	19.5
Pct. with some college		56.2		56.9		56.1	
Standard error		1.6		3.7		1.8	
Income[1]	1,031	100.0	237	100.0	794	100.0	23.0
Under $3,000	19	1.8	1	.4	18	2.3	*
$3,000-$4,999	33	3.2	5	2.1	28	3.5	*
$5,000-$6,999	83	8.1	11	4.6	72	9.1	13.3
$7,000-$9,999	130	12.6	14	5.9	116	14.6	10.8
$10,000-$14,999	286	27.7	71	30.0	215	27.1	24.8
$15,000-$24,999	357	34.6	99	41.8	258	32.5	27.7
$25,000 and over	123	11.9	36	15.2	87	11.0	29.3
Median	$14,379		$16,667		$13,790		
Standard error	$340		$941		$397		

[1] Relates to heads with families who had income in 1975 rather than to all employed heads of households. * Base less than 75,000.

Source: See table 1. Numbers in each part of the table were independently rounded.

TABLES 12-22 (TRAVEL TO WORK)

Table 12 -- Total employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	43,486	-	9,506	-	33,980	-
Mode of transportation						
Not working at home	41,795	100.0	9,459	100.0	32,336	100.0
Auto - alone	29,338	70.2	6,025	63.7	23,313	72.1
Auto - with others	7,564	18.1	2,327	24.6	5,237	16.2
Public transport	2,567	6.1	994	10.5	1,573	4.9
Walks only	1,825	4.4	32	.3	1,793	5.5
Other means	501	1.2	81	.9	420	1.3
Works at home	1,493	*	1	*	1,492	*
No answer	196	*	45	*	151	*
Time, home to work						
Not working at home	41,693	100.0	9,409	100.0	32,284	100.0
Under 15 minutes	15,319	36.7	759	8.1	14,560	45.1
15-29 minutes	14,650	35.1	2,642	28.1	12,008	37.2
30-44 minutes	7,004	16.8	2,825	30.0	4,179	12.9
45-59 minutes	2,486	6.0	1,470	15.6	1,016	3.1
60+ minutes	2,234	5.4	1,713	18.2	521	1.6
Median	20.7		36.9		17.0	
Standard error	.1		.3		.1	
Works at home	1,493	*	1	*	1,492	*
No fixed place of work and no answer	300	*	98	*	204	*
Distance, home to work						
Not working at home	41,548	100.0	9,346	100.0	32,202	100.0
Under 1 mile	4,425	10.7	97	1.0	4,328	13.4
1-4 miles	13,150	31.7	688	7.4	12,462	38.7
5-9 miles	8,581	20.7	1,377	14.7	7,204	22.4
10-19 miles	9,334	22.5	3,009	32.2	6,325	19.6
20-29 miles	3,489	8.4	2,043	21.9	1,446	4.5
30 and over miles	2,569	6.2	2,132	22.8	437	1.4
Median	6.9		18.3		4.8	
Standard error	.1		.2		.03	
Works at home	1,493	*	1	*	1,492	*
No fixed place of work and no answer	440	*	155	*	285	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 13 -- Nonmigrant employed household heads by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	33,689	-	6,418	-	27,271	-
Mode of transportation						
Not working at home	32,248	100.0	6,392	100.0	25,856	100.0
Auto - alone	22,720	70.5	3,997	62.5	18,723	72.4
Auto - with others	5,757	17.9	1,636	25.6	4,121	15.9
Public transport	2,017	6.3	687	10.7	1,330	5.1
Walks only	1,426	4.4	23	.4	1,403	5.4
Other means	328	1.0	49	.8	279	1.1
Works at home	1,282	*	1	*	1,281	*
No answer	160	*	27	*	133	*
Time, home to work						
Not working at home	32,155	100.0	6,351	100.0	25,804	100.0
Under 15 minutes	11,916	37.1	529	8.3	11,387	44.1
15-29 minutes	11,404	35.5	1,768	27.8	9,636	37.3
30-44 minutes	5,364	16.7	1,890	29.8	3,474	13.5
45-59 minutes	1,859	5.8	998	15.7	861	3.3
60 and over minutes	1,612	5.0	1,166	18.4	446	1.7
Median	20.5	-	37.0	-	17.4	-
Standard error	.14		.4		.15	
Works at home	1,282	*	1	*	1,281	*
No fixed place of work and no answer	254	*	69	*	185	*
Distance, home to work						
Not working at home	32,057	100.0	6,316	100.0	25,741	100.0
Under 1 mile	3,514	11.0	68	1.1	3,446	13.4
1-4 miles	10,375	32.4	495	7.8	9,880	38.4
5-9 miles	6,730	21.0	949	15.0	5,781	22.5
10-19 miles	7,184	22.4	2,055	32.5	5,129	19.9
20-29 miles	2,502	7.8	1,356	21.5	1,146	4.5
30 and over miles	1,752	5.5	1,393	22.1	359	1.4
Median	6.6	-	18.0	-	4.8	-
Standard error	.08		.23		.04	
Works at home	1,282	*	1	*	1,281	*
No fixed place of work and no answer	356	*	106	*	250	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 14 -- Migrant employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Commuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	9,797	-	3,088	-	6,709	-
Mode of transportation						
Not working at home	9,547	100.0	3,067	100.0	6,480	100.0
Auto - alone	6,618	69.3	2,028	66.1	4,590	70.8
Auto - with others	1,807	18.9	691	22.5	1,116	17.2
Public transport	550	5.8	307	10.0	243	3.8
Walks only	399	4.2	9	.3	390	6.0
Other means	173	1.8	32	1.0	141	2.2
Works at home	211	*	0	*	211	*
No answer	36	*	18	*	18	*
Time, home to work						
Not working at home	9,538	100.0	3,058	100.0	6,480	100.0
Under 15 minutes	3,403	35.7	230	7.5	3,173	49.0
15-29 minutes	3,246	34.0	874	28.6	2,372	36.6
30-44 minutes	1,640	17.2	935	30.6	705	10.9
45-59 minutes	627	6.6	472	15.4	155	2.4
60 and over minutes	622	6.5	547	17.9	75	1.2
Median	21.3		36.8		15.4	
Standard error	.3		.5		.3	
Works at home	211	*	0	*	211	*
No fixed place of work and no answer	46	*	27	*	19	*
Distance, home to work						
Not working at home	9,491	100.0	3,030	100.0	6,461	100.0
Under 1 mile	911	9.6	29	1.0	882	13.7
1-4 miles	2,775	29.2	193	6.4	2,582	40.0
5-9 miles	1,851	19.5	428	14.1	1,423	22.0
10-19 miles	2,150	22.8	954	31.5	1,196	18.5
20-29 miles	987	10.5	687	22.7	300	4.6
30 and over miles	817	8.7	739	24.4	78	1.2
Median	7.9		19.1		4.6	
Standard error	.2		.3		.08	
Works at home	211	*	0	*	211	*
No fixed place of work and no answer	84	*	49	*	35	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 15 -- Nonmetro employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	11,222	-	2,192	-	9,030	-
Mode of transportation						
Not working at home	10,275	100.0	2,178	100.0	8,097	100.0
Auto - alone	7,255	70.6	1,379	63.3	5,876	72.6
Auto - with others	2,207	21.5	750	34.4	1,457	18.0
Public transport	62	.6	18	.8	44	.5
Walks only	607	5.9	15	.7	592	7.3
Other means	144	1.4	16	.7	128	1.6
Works at home	892	*	1	*	891	*
No answer	57	*	14	*	43	*
Time, home to work						
Not working at home	10,238	100.0	2,156	100.0	8,082	100.0
Under 15 minutes	5,306	51.8	225	10.4	5,081	62.9
15-29 minutes	2,813	27.5	538	25.0	2,275	28.1
30-44 minutes	1,177	11.5	614	28.5	563	7.0
45-59 minutes	432	4.2	334	15.5	98	1.2
60+ minutes	510	5.0	445	20.6	65	.8
Median	14.5		37.7		11.9	
Standard error			.7			
Works at home	892	*	1	*	891	*
No fixed place of work and no answer	93	*	35	*	58	*
Distance, home to work						
Not working at home	10,238	100.0	2,154	100.0	8,084	100.0
Under 1 mile	1,867	18.2	42	1.9	1,825	22.6
1-4 miles	3,665	35.8	160	7.4	3,505	43.4
5-9 miles	1,536	15.0	201	9.3	1,335	16.5
10-19 miles	1,561	15.2	503	23.4	1,058	13.1
20-29 miles	781	7.6	507	23.5	274	3.4
30 and over	828	8.1	741	34.4	87	1.1
Median	4.6		23.4		3.5	
Standard error	.1		.6		.1	
Works at home	892	*	1	*	891	*
No fixed place of work and no answer	94	*	38	*	56	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 16 -- Nonmetro nonmigrant employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	8,566	-	1,524	-	7,042	-
Mode of transportation						
Not working at home	7,742	100.0	1,515	100.0	6,227	100.0
Auto - alone	5,446	70.3	920	60.7	4,526	72.7
Auto - with others	1,696	21.9	558	36.8	1,138	18.3
Public transport	46	.6	14	.9	32	.5
Walks only	462	6.0	11	.7	451	7.2
Other means	92	1.2	12	.8	80	1.3
Works at home	778	*	1	*	777	*
No answer	49	*	10	*	39	*
Time, home to work						
Not working at home	7,715	100.0	1,496	100.0	6,219	100.0
Under 15 minutes	4,052	52.5	158	10.6	3,894	62.6
15-29 minutes	2,120	27.5	374	25.0	1,746	28.1
30-44 minutes	858	11.1	413	27.6	445	7.2
45-59 minutes	315	4.1	232	15.5	83	1.3
60+ minutes	370	4.8	319	21.3	51	.8
Median	14.3		37.9		12.0	
Standard error			.9			
Works at home	778	*	1	*	777	*
No fixed place of work and no answer	75	*	29	*	46	*
Distance, home to work						
Not working at home	7,710	100.0	1,497	100.0	6,213	100.0
Under 1 mile	1,458	18.9	30	2.0	1,428	23.0
1-4 miles	2,776	36.0	114	7.6	2,662	42.8
5-9 miles	1,156	15.0	133	8.9	1,023	16.5
10-19 miles	1,178	15.3	356	23.8	822	13.2
20-29 miles	558	7.2	346	23.1	212	3.4
30 and over	584	7.6	518	34.6	66	1.1
Median	4.5		23.3		3.5	
Standard error	.1		.7		.1	
Works at home	778	*	1	*	777	*
No fixed place of work and no answer	78	*	29	*	49	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 17 -- Nonmetro/nonmetro migrant employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	1,143	-	265	-	878	-
Mode of transportation						
Not working at home	1,095	100.0	264	100.0	831	100.0
Auto - alone	783	71.5	182	68.9	601	72.3
Auto - with others	217	19.8	80	30.3	137	16.5
Public transport	7	.6	1	.4	6	.7
Walks only	67	6.1	1	.4	66	7.9
Other means	21	1.9	-	-	21	2.5
Works at home	48	*	-	*	48	*
No answer	1	*	2	*	1	*
Time, home to work						
Not working at home	1,089	100.0	260	100.0	829	100.0
Under 15 minutes	582	53.4	38	14.6	544	65.6
15-29 minutes	284	26.1	65	25.0	219	26.4
30-44 minutes	142	13.0	89	34.2	53	6.4
45-59 minutes	35	3.2	29	11.2	6	.7
60+ minutes	46	4.2	39	15.0	7	.8
Median	14.0		34.6		11.4	
Standard error			1.6			
Works at home	48	*	-	*	48	*
No fixed place of work and no answer	9	*	4	*	5	*
Distance, home to work						
Not working at home	1,096	100.0	260	100.0	836	100.0
Under 1 mile	203	18.5	6	2.3	197	23.6
1-4 miles	419	38.2	29	11.2	390	46.7
5-9 miles	140	12.8	28	10.8	112	13.4
10-19 miles	159	14.5	68	26.2	91	10.9
20-29 miles	101	9.2	62	23.8	39	4.7
30 and over	74	6.8	67	25.8	7	.8
Median	4.3		19.9		3.3	
Standard error	.2		1.5		.2	
Works at home	48	*	-	*	48	*
No fixed place of work and no answer	7	*	4	*	3	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 18 -- Metro/nonmetro migrants employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	1,513	-	402	-	1,111	-
Mode of transportation						
Not working at home	1,443	100.0	399	100.0	1,044	100.0
Auto - alone	1,028	71.2	278	69.7	750	71.8
Auto - with others	294	20.4	111	27.8	183	17.5
Public transport	8	.6	3	.8	5	.5
Walks only	80	5.5	3	.8	77	7.4
Other means	33	2.3	4	1.0	29	2.8
Works at home	66	*	-	*	66	*
No answer	7	*	3	*	4	*
Time, home to work						
Not working at home	1,440	100.0	400	100.0	1,040	100.0
Under 15 minutes	672	46.7	30	7.5	642	61.7
15-29 minutes	411	28.5	99	24.8	312	30.0
30-44 minutes	181	12.6	113	28.3	68	6.5
45-59 minutes	81	5.6	70	17.5	11	1.1
60+ minutes	95	6.6	88	22.0	7	.7
Median	16.8		39.4		12.2	
Standard error	.8		1.6			
Works at home	66	*	-	*	66	*
No fixed place of work and no answer	10	*	4	*	6	*
Distance, home to work						
Not working at home	1,439	100.0	395	100.0	1,044	100.0
Under 1 mile	208	14.5	6	1.5	202	19.3
1-4 miles	471	32.7	17	4.3	454	43.5
5-9 miles	236	16.4	37	9.4	199	19.1
10-19 miles	222	15.4	79	20.0	143	13.7
20-29 miles	131	9.1	100	25.3	31	3.0
30 and over	171	11.9	156	39.5	15	1.4
Median	5.9		25.9		3.8	
Standard error	.5		1.2		.2	
Works at home	66	*	-	*	66	*
No fixed place of work and no answer	9	*	4	*	5	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 19 -- Metro employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Nonconmuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	32,263	-	7,314	-	24,949	-
Mode of transportation						
Not working at home	31,520	100.0	7,282	100.0	24,238	100.0
Auto - alone	22,082	70.1	4,646	63.8	17,436	71.9
Auto - with others	5,359	17.0	1,578	21.7	3,781	15.6
Public transport	2,504	7.9	977	13.4	1,527	6.3
Walks only	1,218	3.9	17	.2	1,201	5.0
Other means	357	1.1	64	.9	293	1.2
Works at home	602	*	-	*	602	*
No answer	139	*	32	*	107	*
Time, home to work						
Not working at home	31,456	100.0	7,255	100.0	24,201	100.0
Under 15 minues	10,013	31.8	535	7.4	9,478	39.2
15-29 minutes	11,837	37.6	2,105	29.0	9,732	40.2
30-44 minutes	5,825	18.5	2,209	30.4	3,616	14.9
45-59 minutes	2,055	6.5	1,137	15.7	918	3.8
60+ minutes	1,726	5.5	1,269	17.5	457	1.9
Median	22.2		36.7		19.0	
Standard error	.1		.4		.2	
Works at home	602	*	-	*	602	*
No fixed place of work and no answer	207	*	61	*	146	*
Distance, home to work						
No working at home	31,311	100.0	7,194	100.0	24,117	100.0
Under 1 mile	2,559	8.2	56	.8	2,503	10.4
1-4 miles	9,487	30.3	530	7.4	8,957	37.1
5-9 miles	7,044	22.5	1,176	16.3	5,868	24.3
10-19 miles	7,773	24.8	2,506	34.8	5,267	21.8
20-29 miles	2,708	8.6	1,536	21.4	1,172	4.9
30 and over	1,740	5.6	1,390	19.3	350	1.5
Median	7.6		17.3		5.5	
Standard error	.1		.2		.1	
Works at home	602	*	-	*	602	*
No fixed place of work and no answer	349	*	120	*	229	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 20 -- Metro nonmigrant employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	25,123	-	4,894	-	20,229	-
Mode of transportation						
Not working at home	24,506	100.0	4,877	100.0	19,629	100.0
Auto - alone	17,274	70.5	3,077	63.1	14,197	72.3
Auto - with others	4,061	16.6	1,078	22.1	2,983	15.2
Public transport	1,971	8.0	673	13.8	1,298	6.6
Walks only	964	3.9	12	.2	952	4.8
Other means	236	1.0	37	.8	199	1.0
Works at home	504	*	-	*	504	*
No answer	111	*	17	*	94	*
Time, home to work						
Not working at home	24,440	100.0	4,855	100.0	19,585	100.0
Under 15 minutes	7,864	32.2	371	7.6	7,493	38.3
15-29 minutes	9,284	38.0	1,394	28.7	7,890	40.3
30-44 minutes	4,506	18.4	1,477	30.4	3,029	15.5
45-59 minutes	1,544	6.3	766	15.8	778	4.0
60+ minutes	1,242	5.1	847	17.4	395	2.0
Median	22.0		36.7		19.4	
Standard error	.2		.4		.2	
Works at home	504	*	-	*	504	*
No fixed place of work and no answer	179	*	40	*	139	*
Distance, home to work						
Not working at home	24,347	100.0	4,819	100.0	19,528	100.0
Under 1 mile	2,056	8.4	38	.8	2,018	10.3
1-4 miles	7,599	31.2	381	7.9	7,218	37.0
5-9 miles	5,574	22.9	816	16.9	4,758	24.4
10-19 miles	6,006	24.7	1,699	35.3	4,307	22.1
20-29 miles	1,944	8.0	1,010	21.0	934	4.8
30 and over	1,168	4.8	875	18.2	293	1.5
Median	7.3		16.9		5.6	
Standard error	.1		.3		.1	
Works at home	504	*	-	*	504	*
No fixed place of work and no answer	278	*	77	*	201	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 21 -- Metro/metro migrant employed household heads, by inter-county commuter status, mode to transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	5,747	-	2,150	-	3,597	-
Mode of transportation						
Not working at home	5,642	100.0	2,138	100.0	3,504	100.0
Auto - alone	3,850	68.2	1,392	65.1	2,458	70.1
Auto - with others	1,032	18.3	436	20.4	596	17.0
Public transport	473	8.4	281	13.1	192	5.5
Walks only	187	3.3	3	.1	184	5.3
Other means	100	1.8	26	1.2	74	2.1
Works at home	80	*	-	*	80	*
No answer	22	*	14	*	8	*
Time, home to work						
Not working at home	5,642	100.0	2,132	100.0	3,510	100.0
Under 15 minutes	1,585	28.1	133	6.2	1,452	41.4
15-29 minutes	2,058	36.5	626	29.4	1,432	40.8
30-44 minutes	1,116	19.8	658	30.9	458	13.0
45-59 minutes	444	7.9	330	15.5	114	3.2
60+ minutes	439	7.8	385	18.1	54	1.5
Median	24.0		37.0		18.2	
Standard error	3		.6		.4	
Works at home	80	*	-	*	80	*
No fixed place of work and no answer	27	*	20	*	7	*
Distance, home to work						
Not working at home	5,598	100.0	2,109	100.0	3,489	100.0
Under 1 mile	353	6.3	16	.8	337	9.7
1-4 miles	1,421	25.4	128	6.1	1,293	37.1
5-9 miles	1,187	21.2	320	15.2	867	24.8
10-19 miles	1,474	26.3	722	34.2	752	21.6
20-29 miles	659	11.8	469	22.2	190	5.4
30 and over	504	9.0	454	21.5	50	1.4
Median	9.3		18.2		5.7	
Standard error	.2		.4		.2	
Works at home	80	*	-	*	80	*
No fixed place of work and no answer	66	*	39	*	27	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

Table 22 -- Nonmetro/metro migrant employed household heads, by inter-county commuter status, mode of transportation, time, and distance to work, 1975

Characteristic	Employed household heads		Inter-county commuter		Noncommuter	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
	(000)	(Pct.)	(000)	(Pct.)	(000)	(Pct.)
Total, 18 years and over	1,392	-	269	-	1,123	-
Mode of transportation						
Not working at home	1,370	100.0	271	100.0	1,099	100.0
Auto - alone	959	70.0	178	65.7	781	71.1
Auto - with others	259	18.9	63	23.2	196	17.8
Public transport	61	4.5	23	8.5	38	3.5
Walks only	70	5.1	4	1.5	66	6.0
Other means	21	1.5	3	1.1	18	1.6
Works at home	17	*	-	*	17	*
No answer	4	*	-	*	4	*
Time, home to work						
Not working at home	1,369	100.0	265	100.0	1,104	100.0
Under 15 minutes	564	41.2	31	11.7	533	48.3
15-29 minutes	492	35.9	84	31.7	408	37.0
30-44 minutes	202	14.8	74	27.9	128	11.6
45-59 minutes	64	4.7	38	14.3	26	2.4
60+ minutes	47	3.4	38	14.3	9	.8
Median	18.7		33.6		15.7	
Standard error	.7		2.0		.7	
Works at home	17	*	-	*	17	*
No fixed place of work and no answer	3	*	2	*	1	*
Distance, home to work						
Not working at home	1,372	100.0	265	100.0	1,107	100.0
Under 1 mile	152	11.1	4	1.5	148	13.4
1-4 miles	468	34.1	21	7.9	447	40.4
5-9 miles	286	20.8	39	14.7	247	22.3
10-19 miles	287	20.9	83	31.3	204	18.4
20-29 miles	105	7.7	55	20.8	50	4.5
30 and over	74	5.4	63	23.8	11	1.0
Median	6.2		18.3		4.6	
Standard error	.4		1.2		.2	
Works at home	17	*	-	*	17	*
No fixed place of work and no answer	6	*	4	*	2	*

* Not included in percentage distributions.

Source: See table 1. Numbers in each part of the table were independently rounded.

APPENDIX B - SOURCE AND RELIABILITY OF THE DATA

SOURCE AND RELIABILITY OF THE DATA

The data in this report are based on special tabulations from the 1975 Annual Housing Survey and its Travel-To-Work supplement. General information on the Survey, explanations of terms and concepts, and on the reliability of sample estimates can be found in recent publications of the Bureau of the Census (see Related Reports, inside back cover).

Standard errors shown in the tables and others used for tests of significance for statements in the text were derived through the use of the formulas below:

Standard error of an estimated number

$$\sigma_x = \sqrt{ax^2 + bx}$$

Standard error of an estimated percentage

$$\sigma_{(x,p)} = \sqrt{\frac{b}{x}p(100 - p)}$$

Standard error of an estimated median

$$\sigma_m = \sqrt{\frac{b}{x}(50)(50)}$$

The "a" and "b" parameters for the 1975 AHS, provided by the Bureau of the Census, were

Population	Parameters for Calculating Standard Errors	
	a	b
Total or white	-.0000185	1465.0652
Black or other minority races	-.0001938	1465.0652

Standard errors for the differences between two numbers, or percents, or medians, were calculated with the following formula:

Standard error of the difference between two items

$$\sigma_{(x-y)} = \sqrt{\sigma_{x^2} + \sigma_{y^2}}$$

Tests of significance were made at the 2.0 and 1.6 standard error levels (corresponding to 95 and 90 percent levels of significance, respectively) following procedures recommended by the Bureau of the Census for these types of surveys. In comparative statements in the text, the word "nominally" is used if the difference was statistically significant at the 1.6 but not at the 2.0 level.

Illustrations are given below of the use of the standard error formulas with data for metro/nonmetro and nonmetro/metro migrants from tables 7, 11, 18, and 22. Indication is also provided as to whether significant differences existed between the two groups in the characteristics or travel-to-work behavior illustrated. (Notes are on the last page of this section.)

Number of household heads

	Number (000)	Standard error (000) (68 chances out of 100)
Metro/nonmetro migrants	1,513	47
Nonmetro/metro migrants	1,392	45
Absolute difference	121	65 *

Since the difference is significant at the 90 but not the 95 percent level, indications are that the number of migrants moving to nonmetro areas is only nominally higher than the number moving to metro areas.

Inter-county commuter rate

	Number (000)	Rate (Pct.)	Standard error (Pct.) (68 chances out of 100)
Metro/nonmetro migrants	1,513	26.6	1.4
Nonmetro/metro migrants	1,392	19.3	1.3
Absolute difference	1/	7.3	1.9 **

The difference is significant at the 95 percent level. The inter-county commuting rate of metro/nonmetro migrants is higher than that of their counterparts who moved in the opposite direction.

Age at last birthday

	Number (000)	Median (years)	Standard error (Years) (68 chances out of 100)
Metro/nonmetro migrants	1,513	33.0	.4
Nonmetro/metro migrants	1,392	30.4	.4
Absolute difference	1/	2.6	.57 **

The difference is significant at the 95 percent level, indicating that metro/nonmetro migrants are somewhat older than migrants who went to metro from nonmetro areas.

Highest grade of school completed

	Number (000)	Percent with some college (Pct.)	Standard error (Pct.) (68 chances out of 100)
Metro/nonmetro migrants	1,513	46.7	1.6
Nonmetro/metro migrants	1,392	56.2	1.6
Absolute difference	1/	9.5	2.2 **

The difference is significant at the 95 percent level. People moving to metro areas are somewhat better educated than those moving to nonmetro areas.

Family income (of heads with families who had any income in the survey year)

	Number (000)	Median (Dol.)	Standard error (Dol.) (68 chances out of 100)
Metro/nonmetro migrants	1,265	$13,645	$312
Nonmetro/metro migrants	1,031	$14,379	$340
Absolute difference	1/	$734	$461 N.S.

The difference is not significant at either the 90 or 95 percent levels. There is no real difference in the median income of the two migrant groups.

Mode of transportation, from home to work

	Number (000)	Driving alone (Pct.)	Standard error (Pct.) (68 chances out of 100)
Metro/nonmetro migrants	1,443	71.2	1.4
Nonmetro/metro migrants	1,370	70.0	1.5
Absolute difference	1/	1.2	2.1 N.S.

The difference is not significant at either the 90 or 95 percent levels. As high a proportion of one group as the other drives to work alone.

Time, from home to work

	Number (000)	Median (Minutes)	Standard error (Minutes) (68 chances out of 100)
Metro/nonmetro migrants	1,440	16.8	.8
Nonmetro/metro migrants	1,369	18.7	.7
Absolute difference	1/	1.9	1.1 *

The difference is significant at the 90 but not at the 95 percent level. Time spent traveling to work is only nominally higher among nonmetro/metro migrants than it is among metro/nonmetro migrants.

Distance, from home to work

	Number (000)	Median (Miles)	Standard error (Miles) (68 chances out of 100)
Metro/nonmetro migrants	1,439	5.9	.5
Nonmetro/metro migrants	1,372	6.2	.6
Absolute difference	1/	.3	.6 N.S.

The difference is not significant at either the 90 or 95 percent levels, indicating the two groups travel about the same distance to work on the average.

Note on Rounding

Numbers in various sections of the text and tables were independently summed from component parts of tabulations in which data had been rounded to thousands. Therefore, there may be slight variation in figures for the same item appearing in different places, and parts may not add to totals because of the aggregation of rounded numbers.

* Significant at 90 percent level.
** Significant at 95 percent level.
N.S. Not significant at either the 90 or 95 percent levels.
1/ Not involved in the calculation of the standard errors.

RELATED REPORTS

Reports of the Bureau of the Census which are related to some extent with this study are:

(1) Annual Housing Survey: 1975. United States and Regions, Part A. General Housing Characteristics. Current Housing Reports, Series H-150-75A. U. S. Government Printing Office, Washington, D. C. 1977.

(2) The Journey to Work in the United States: 1975. Current Population Reports, Series P-23, No. 99. U. S. Government Printing Office, Washington, D. C. 1979.

Definitions and explanations of terms germane to tabulations made from the 1975 Annual Housing Survey and its Travel-to-Work Supplement can be found in Appendix A in the latter. That report also deals with nonsampling, coverage, and rounding errors that may have some effect on data from the Annual Housing Surveys.